

SEQUENCE LISTING

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<120> CHEMOKINE-BINDING PROTEIN AND METHODS OF
USE

<130> BIOBANK.009CP1

<140> Unknown

<141> 2003-06-19

<150> 10/317,832

<151> 2002-12-10

<150> 60/341,997

<151> 2001-12-18

<160> 292

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 74

<212> PRT

<213> Artificial Sequence

<220>

<223> THAP domain consensus

<221> UNSURE

<222> 2-5, 7-21, 23-31, 33-49, 51-52, 55-73

<223> Xaa = any of the twenty amino acids

<400> 1

Cys	Xaa	Xaa	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
1				5					10					15			
Xaa	Xaa	Xaa	Xaa	Xaa	Pro	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Trp	
			20					25						30			
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			35				40						45				
Xaa	Cys	Xaa	Xaa	His	Phe	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
	50					55							60				
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Pro							
65							70										

<210> 2

<211> 81

<212> PRT

<213> Artificial Sequence

<220>

<223> THAP domain consensus

<221> UNSURE

<222> 3-4, 6-9, 11-21, 24, 27-35, 37-41, 43-53, 56, 59-62, 64-71, 74-75, 80

<223> Xaa = any of the twenty amino acids

<400> 2

Met	Pro	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Cys	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	
1				5					10					15		
Xaa	Xaa	Xaa	Xaa	Xaa	Phe	His	Xaa	Phe	Pro	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	
			20					25					30			
Xaa	Xaa	Xaa	Trp	Xaa	Xaa	Xaa	Xaa	Xaa	Arg	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	
		35					40					45				
Xaa	Xaa	Xaa	Xaa	Xaa	Cys	Ser	Xaa	His	Phe	Xaa	Xaa	Xaa	Xaa	Xaa	Phe	Xaa
	50					55				60						
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Leu	Lys	Xaa	Xaa	Ala	Val	Pro	Thr	Xaa	
65				70					75						80	
Phe																

<210> 3

<211> 213

<212> PRT

<213> Homo sapiens

<400> 3

Met	Val	Gln	Ser	Cys	Ser	Ala	Tyr	Gly	Cys	Lys	Asn	Arg	Tyr	Asp	Lys	
1				5					10					15		
Asp	Lys	Pro	Val	Ser	Phe	His	Lys	Phe	Pro	Leu	Thr	Arg	Pro	Ser	Leu	
			20					25					30			
Cys	Lys	Glu	Trp	Glu	Ala	Ala	Val	Arg	Arg	Lys	Asn	Phe	Lys	Pro	Thr	
		35					40					45				
Lys	Tyr	Ser	Ser	Ile	Cys	Ser	Glu	His	Phe	Thr	Pro	Asp	Cys	Phe	Lys	
	50					55					60					
Arg	Glu	Cys	Asn	Asn	Lys	Leu	Leu	Lys	Glu	Asn	Ala	Val	Pro	Thr	Ile	
65					70					75					80	
Phe	Leu	Cys	Thr	Glu	Pro	His	Asp	Lys	Lys	Glu	Asp	Leu	Leu	Glu	Pro	
			85					90						95		
Gln	Glu	Gln	Leu	Pro	Pro	Pro	Pro	Leu	Pro	Pro	Pro	Val	Ser	Gln	Val	
			100					105					110			
Asp	Ala	Ala	Ile	Gly	Leu	Leu	Met	Pro	Pro	Leu	Gln	Thr	Pro	Val	Asn	
		115					120					125				
Leu	Ser	Val	Phe	Cys	Asp	His	Asn	Tyr	Thr	Val	Glu	Asp	Thr	Met	His	
	130					135					140					
Gln	Arg	Lys	Arg	Ile	His	Gln	Leu	Glu	Gln	Gln	Val	Glu	Lys	Leu	Arg	
145					150					155					160	
Lys	Lys	Leu	Lys	Thr	Ala	Gln	Gln	Arg	Cys	Arg	Arg	Gln	Glu	Arg	Gln	
			165					170					175			
Leu	Glu	Lys	Leu	Lys	Glu	Val	Val	His	Phe	Gln	Lys	Glu	Lys	Asp	Asp	
		180					185					190				
Val	Ser	Glu	Arg	Gly	Tyr	Val	Ile	Leu	Pro	Asn	Asp	Tyr	Phe	Glu	Ile	
		195				200						205				
Val	Glu	Val	Pro	Ala												
		210														

<210> 4
 <211> 228
 <212> PRT
 <213> Homo sapiens

<400> 4
 Met Pro Thr Asn Cys Ala Ala Ala Gly Cys Ala Thr Thr Tyr Asn Lys
 1 5 10 15
 His Ile Asn Ile Ser Phe His Arg Phe Pro Leu Asp Pro Lys Arg Arg
 20 25 30
 Lys Glu Trp Val Arg Leu Val Arg Arg Lys Asn Phe Val Pro Gly Lys
 35 40 45
 His Thr Phe Leu Cys Ser Lys His Phe Glu Ala Ser Cys Phe Asp Leu
 50 55 60
 Thr Gly Gln Thr Arg Arg Leu Lys Met Asp Ala Val Pro Thr Ile Phe
 65 70 75 80
 Asp Phe Cys Thr His Ile Lys Ser Met Lys Leu Lys Ser Arg Asn Leu
 85 90 95
 Leu Lys Lys Asn Asn Ser Cys Ser Pro Ala Gly Pro Ser Asn Leu Lys
 100 105 110
 Ser Asn Ile Ser Ser Gln Gln Val Leu Leu Glu His Ser Tyr Ala Phe
 115 120 125
 Arg Asn Pro Met Glu Ala Lys Lys Arg Ile Ile Lys Leu Glu Lys Glu
 130 135 140
 Ile Ala Ser Leu Arg Arg Lys Met Lys Thr Cys Leu Gln Lys Glu Arg
 145 150 155 160
 Arg Ala Thr Arg Arg Trp Ile Lys Ala Thr Cys Leu Val Lys Asn Leu
 165 170 175
 Glu Ala Asn Ser Val Leu Pro Lys Gly Thr Ser Glu His Met Leu Pro
 180 185 190
 Thr Ala Leu Ser Ser Leu Pro Leu Glu Asp Phe Lys Ile Leu Glu Gln
 195 200 205
 Asp Gln Gln Asp Lys Thr Leu Leu Ser Leu Asn Leu Lys Gln Thr Lys
 210 215 220
 Ser Thr Phe Ile
 225

<210> 5
 <211> 239
 <212> PRT
 <213> Homo sapiens

<400> 5
 Met Pro Lys Ser Cys Ala Ala Arg Gln Cys Cys Asn Arg Tyr Ser Ser
 1 5 10 15
 Arg Arg Lys Gln Leu Thr Phe His Arg Phe Pro Phe Ser Arg Pro Glu
 20 25 30
 Leu Leu Lys Glu Trp Val Leu Asn Ile Gly Arg Gly Asn Phe Lys Pro
 35 40 45
 Lys Gln His Thr Val Ile Cys Ser Glu His Phe Arg Pro Glu Cys Phe
 50 55 60
 Ser Ala Phe Gly Asn Arg Lys Asn Leu Lys His Asn Ala Val Pro Thr
 65 70 75 80
 Val Phe Ala Phe Gln Asp Pro Thr Gln Gln Val Arg Glu Asn Thr Asp
 85 90 95

Pro	Ala	Ser	Glu	Arg	Gly	Asn	Ala	Ser	Ser	Ser	Gln	Lys	Glu	Lys	Val
			100					105					110		
Leu	Pro	Glu	Ala	Gly	Ala	Gly	Glu	Asp	Ser	Pro	Gly	Arg	Asn	Met	Asp
		115					120					125			
Thr	Ala	Leu	Glu	Glu	Leu	Gln	Leu	Pro	Pro	Asn	Ala	Glu	Gly	His	Val
		130				135					140				
Lys	Gln	Val	Ser	Pro	Arg	Arg	Pro	Gln	Ala	Thr	Glu	Ala	Val	Gly	Arg
145					150				155						160
Pro	Thr	Gly	Pro	Ala	Gly	Leu	Arg	Arg	Thr	Pro	Asn	Lys	Gln	Pro	Ser
			165					170						175	
Asp	His	Ser	Tyr	Ala	Leu	Leu	Asp	Leu	Asp	Ser	Leu	Lys	Lys	Lys	Leu
		180					185						190		
Phe	Leu	Thr	Leu	Lys	Glu	Asn	Glu	Lys	Leu	Arg	Lys	Arg	Leu	Gln	Ala
		195				200					205				
Gln	Arg	Leu	Val	Met	Arg	Arg	Met	Ser	Ser	Arg	Leu	Arg	Ala	Cys	Lys
	210					215					220				
Gly	His	Gln	Gly	Leu	Gln	Ala	Arg	Leu	Gly	Pro	Glu	Gln	Gln	Ser	
225					230					235					

<210> 6
 <211> 577
 <212> PRT
 <213> Homo sapiens

<400> 6

Met	Val	Ile	Cys	Cys	Ala	Ala	Val	Asn	Cys	Ser	Asn	Arg	Gln	Gly	Lys
1			5					10					15		
Gly	Glu	Lys	Arg	Ala	Val	Ser	Phe	His	Arg	Phe	Pro	Leu	Lys	Asp	Ser
		20					25					30			
Lys	Arg	Leu	Ile	Gln	Trp	Leu	Lys	Ala	Val	Gln	Arg	Asp	Asn	Trp	Thr
	35				40					45					
Pro	Thr	Lys	Tyr	Ser	Phe	Leu	Cys	Ser	Glu	His	Phe	Thr	Lys	Asp	Ser
	50				55				60						
Phe	Ser	Lys	Arg	Leu	Glu	Asp	Gln	His	Arg	Leu	Leu	Lys	Pro	Thr	Ala
65			70					75						80	
Val	Pro	Ser	Ile	Phe	His	Leu	Thr	Glu	Lys	Lys	Arg	Gly	Ala	Gly	Gly
			85					90					95		
His	Gly	Arg	Thr	Arg	Arg	Lys	Asp	Ala	Ser	Lys	Ala	Thr	Gly	Gly	Val
		100					105					110			
Arg	Gly	His	Ser	Ser	Ala	Ala	Thr	Gly	Arg	Gly	Ala	Ala	Gly	Trp	Ser
	115					120					125				
Pro	Ser	Ser	Ser	Gly	Asn	Pro	Met	Ala	Lys	Pro	Glu	Ser	Arg	Arg	Leu
	130				135						140				
Lys	Gln	Ala	Ala	Leu	Gln	Gly	Glu	Ala	Thr	Pro	Arg	Ala	Ala	Gln	Glu
145				150					155						160
Ala	Ala	Ser	Gln	Glu	Gln	Ala	Gln	Gln	Ala	Leu	Glu	Arg	Thr	Pro	Gly
			165					170						175	
Asp	Gly	Leu	Ala	Thr	Met	Val	Ala	Gly	Ser	Gln	Gly	Lys	Ala	Glu	Ala
		180					185					190			
Ser	Ala	Thr	Asp	Ala	Gly	Asp	Glu	Ser	Ala	Thr	Ser	Ser	Ile	Glu	Gly
	195					200					205				
Gly	Val	Thr	Asp	Lys	Ser	Gly	Ile	Ser	Met	Asp	Asp	Phe	Thr	Pro	Pro
	210				215					220					
Gly	Ser	Gly	Ala	Cys	Lys	Phe	Ile	Gly	Ser	Leu	His	Ser	Tyr	Ser	Phe
225				230					235						240
Ser	Ser	Lys	His	Thr	Arg	Glu	Arg	Pro	Ser	Val	Pro	Arg	Glu	Pro	Ile

				245					250					255			
Asp	Arg	Lys	Arg	Leu	Lys	Lys	Asp	Val	Glu	Pro	Ser	Cys	Ser	Gly	Ser		
			260					265					270				
Ser	Leu	Gly	Pro	Asp	Lys	Gly	Leu	Ala	Gln	Ser	Pro	Pro	Ser	Ser	Ser		
		275					280					285					
Leu	Thr	Ala	Thr	Pro	Gln	Lys	Pro	Ser	Gln	Ser	Pro	Ser	Ala	Pro	Pro		
	290				295						300						
Ala	Asp	Val	Thr	Pro	Lys	Pro	Ala	Thr	Glu	Ala	Val	Gln	Ser	Glu	His		
305					310					315					320		
Ser	Asp	Ala	Ser	Pro	Met	Ser	Ile	Asn	Glu	Val	Ile	Leu	Ser	Ala	Ser		
			325					330						335			
Gly	Ala	Cys	Lys	Leu	Ile	Asp	Ser	Leu	His	Ser	Tyr	Cys	Phe	Ser	Ser		
		340					345					350					
Arg	Gln	Asn	Lys	Ser	Gln	Val	Cys	Cys	Leu	Arg	Glu	Gln	Val	Glu	Lys		
	355					360					365						
Lys	Asn	Gly	Glu	Leu	Lys	Ser	Leu	Arg	Gln	Arg	Val	Ser	Arg	Ser	Asp		
	370				375					380							
Ser	Gln	Val	Arg	Lys	Leu	Gln	Glu	Lys	Leu	Asp	Glu	Leu	Arg	Arg	Val		
385				390						395					400		
Ser	Val	Pro	Tyr	Pro	Ser	Ser	Leu	Leu	Ser	Pro	Ser	Arg	Glu	Pro	Pro		
			405					410						415			
Lys	Met	Asn	Pro	Val	Val	Glu	Pro	Leu	Ser	Trp	Met	Leu	Gly	Thr	Trp		
		420					425					430					
Leu	Ser	Asp	Pro	Pro	Gly	Ala	Gly	Thr	Tyr	Pro	Thr	Leu	Gln	Pro	Phe		
	435				440						445						
Gln	Tyr	Leu	Glu	Glu	Val	His	Ile	Ser	His	Val	Gly	Gln	Pro	Met	Leu		
	450				455					460							
Asn	Phe	Ser	Phe	Asn	Ser	Phe	His	Pro	Asp	Thr	Arg	Lys	Pro	Met	His		
465				470					475					480			
Arg	Glu	Cys	Gly	Phe	Ile	Arg	Leu	Lys	Pro	Asp	Thr	Asn	Lys	Val	Ala		
			485					490						495			
Phe	Val	Ser	Ala	Gln	Asn	Thr	Gly	Val	Val	Glu	Val	Glu	Glu	Gly	Glu		
		500					505					510					
Val	Asn	Gly	Gln	Glu	Leu	Cys	Ile	Ala	Ser	His	Ser	Ile	Ala	Arg	Ile		
	515					520						525					
Ser	Phe	Ala	Lys	Glu	Pro	His	Val	Glu	Gln	Ile	Thr	Arg	Lys	Phe	Arg		
	530				535						540						
Leu	Asn	Ser	Glu	Gly	Lys	Leu	Glu	Gln	Thr	Val	Ser	Met	Ala	Thr	Thr		
545					550					555					560		
Thr	Gln	Pro	Met	Thr	Gln	His	Leu	His	Val	Thr	Tyr	Lys	Lys	Val	Thr		
			565					570						575			

Pro

<210> 7
 <211> 395
 <212> PRT
 <213> Homo sapiens

<400> 7
 Met Pro Arg Tyr Cys Ala Ala Ile Cys Cys Lys Asn Arg Arg Gly Arg
 1 5 10 15
 Asn Asn Lys Asp Arg Lys Leu Ser Phe Tyr Pro Phe Pro Leu His Asp
 20 25 30
 Lys Glu Arg Leu Glu Lys Trp Leu Lys Asn Met Lys Arg Asp Ser Trp
 35 40 45

Val	Pro	Ser	Lys	Tyr	Gln	Phe	Leu	Cys	Ser	Asp	His	Phe	Thr	Pro	Asp
50						55					60				
Ser	Leu	Asp	Ile	Arg	Trp	Gly	Ile	Arg	Tyr	Leu	Lys	Gln	Thr	Ala	Val
65					70					75					80
Pro	Thr	Ile	Phe	Ser	Leu	Pro	Glu	Asp	Asn	Gln	Gly	Lys	Asp	Pro	Ser
				85					90					95	
Lys	Lys	Lys	Ser	Gln	Lys	Lys	Asn	Leu	Glu	Asp	Glu	Lys	Glu	Val	Cys
			100					105					110		
Pro	Lys	Ala	Lys	Ser	Glu	Glu	Ser	Phe	Val	Leu	Asn	Glu	Thr	Lys	Lys
		115					120					125			
Asn	Ile	Val	Asn	Thr	Asp	Val	Pro	His	Gln	His	Pro	Glu	Leu	Leu	His
	130					135					140				
Ser	Ser	Ser	Leu	Val	Lys	Pro	Pro	Ala	Pro	Lys	Thr	Gly	Ser	Ile	Gln
145					150					155					160
Asn	Asn	Met	Leu	Thr	Leu	Asn	Leu	Val	Lys	Gln	His	Thr	Gly	Lys	Pro
			165						170					175	
Glu	Ser	Thr	Leu	Glu	Thr	Ser	Val	Asn	Gln	Asp	Thr	Gly	Arg	Gly	Gly
			180					185					190		
Phe	His	Thr	Cys	Phe	Glu	Asn	Leu	Asn	Ser	Thr	Thr	Ile	Thr	Leu	Thr
		195					200					205			
Thr	Ser	Asn	Ser	Glu	Ser	Ile	His	Gln	Ser	Leu	Glu	Thr	Gln	Glu	Val
	210					215					220				
Leu	Glu	Val	Thr	Thr	Ser	His	Leu	Ala	Asn	Pro	Asn	Phe	Thr	Ser	Asn
225					230					235					240
Ser	Met	Glu	Ile	Lys	Ser	Ala	Gln	Glu	Asn	Pro	Phe	Leu	Phe	Ser	Thr
			245						250					255	
Ile	Asn	Gln	Thr	Val	Glu	Glu	Leu	Asn	Thr	Asn	Lys	Glu	Ser	Val	Ile
		260						265					270		
Ala	Ile	Phe	Val	Pro	Ala	Glu	Asn	Ser	Lys	Pro	Ser	Val	Asn	Ser	Phe
		275					280					285			
Ile	Ser	Ala	Gln	Lys	Glu	Thr	Thr	Glu	Met	Glu	Asp	Thr	Asp	Ile	Glu
	290					295					300				
Asp	Ser	Leu	Tyr	Lys	Asp	Val	Asp	Tyr	Gly	Thr	Glu	Val	Leu	Gln	Ile
305					310					315					320
Glu	His	Ser	Tyr	Cys	Arg	Gln	Asp	Ile	Asn	Lys	Glu	His	Leu	Trp	Gln
			325						330					335	
Lys	Val	Ser	Lys	Leu	His	Ser	Lys	Ile	Thr	Leu	Leu	Glu	Leu	Lys	Glu
			340					345					350		
Gln	Gln	Thr	Leu	Gly	Arg	Leu	Lys	Ser	Leu	Glu	Ala	Leu	Ile	Arg	Gln
		355					360					365			
Leu	Lys	Gln	Glu	Asn	Trp	Leu	Ser	Glu	Glu	Asn	Val	Lys	Ile	Ile	Glu
	370					375					380				
Asn	His	Phe	Thr	Thr	Tyr	Glu	Val	Thr	Met	Ile					
385					390					395					

<210> 8

<211> 222

<212> PRT

<213> Homo sapiens

<400> 8

Met	Val	Lys	Cys	Cys	Ser	Ala	Ile	Gly	Cys	Ala	Ser	Arg	Cys	Leu	Pro
1				5					10					15	
Asn	Ser	Lys	Leu	Lys	Gly	Leu	Thr	Phe	His	Val	Phe	Pro	Thr	Asp	Glu
			20					25					30		
Asn	Ile	Lys	Arg	Lys	Trp	Val	Leu	Ala	Met	Lys	Arg	Leu	Asp	Val	Asn

Val Ser Pro Ser Ala Tyr Met Leu Arg Leu Pro Pro Pro Ala Gly Ala
 210 215 220
 Tyr Ile Gln Asn Glu His Ser Tyr Gln Val Gly Ser Ala Leu Leu Trp
 225 230 235 240
 Lys Arg Arg Ala Glu Ala Ala Leu Asp Ala Leu Asp Lys Ala Gln Arg
 245 250 255
 Gln Leu Gln Ala Cys Lys Arg Arg Glu Gln Arg Leu Arg Leu Arg Leu
 260 265 270
 Thr Lys Leu Gln Gln Glu Arg Ala Arg Glu Lys Arg Ala Gln Ala Asp
 275 280 285
 Ala Arg Gln Thr Leu Lys Glu His Val Gln Asp Phe Ala Met Gln Leu
 290 295 300
 Ser Ser Ser Met Ala
 305

<210> 10
 <211> 274
 <212> PRT
 <213> Homo sapiens

<400> 10
 Met Pro Lys Tyr Cys Arg Ala Pro Asn Cys Ser Asn Thr Ala Gly Arg
 1 5 10 15
 Leu Gly Ala Asp Asn Arg Pro Val Ser Phe Tyr Lys Phe Pro Leu Lys
 20 25 30
 Asp Gly Pro Arg Leu Gln Ala Trp Leu Gln His Met Gly Cys Glu His
 35 40 45
 Trp Val Pro Ser Cys His Gln His Leu Cys Ser Glu His Phe Thr Pro
 50 55 60
 Ser Cys Phe Gln Trp Arg Trp Gly Val Arg Tyr Leu Arg Pro Asp Ala
 65 70 75 80
 Val Pro Ser Ile Phe Ser Arg Gly Pro Pro Ala Lys Ser Gln Arg Arg
 85 90 95
 Thr Arg Ser Thr Gln Lys Pro Val Ser Pro Pro Pro Pro Leu Gln Lys
 100 105 110
 Asn Thr Pro Leu Pro Gln Ser Pro Ala Ile Pro Val Ser Gly Pro Val
 115 120 125
 Arg Leu Val Val Leu Gly Pro Thr Ser Gly Ser Pro Lys Thr Val Ala
 130 135 140
 Thr Met Leu Leu Thr Pro Leu Ala Pro Ala Pro Thr Pro Glu Arg Ser
 145 150 155 160
 Gln Pro Glu Val Pro Ala Gln Gln Ala Gln Thr Gly Leu Gly Pro Val
 165 170 175
 Leu Gly Ala Leu Gln Arg Arg Val Arg Arg Leu Gln Arg Cys Gln Glu
 180 185 190
 Arg His Gln Ala Gln Leu Gln Ala Leu Glu Arg Leu Ala Gln Gln Leu
 195 200 205
 His Gly Glu Ser Leu Leu Ala Arg Ala Arg Arg Gly Leu Gln Arg Leu
 210 215 220
 Thr Thr Ala Gln Thr Leu Gly Pro Glu Glu Ser Gln Thr Phe Thr Ile
 225 230 235 240
 Ile Cys Gly Gly Pro Asp Ile Ala Met Val Leu Ala Gln Asp Pro Ala
 245 250 255
 Pro Ala Thr Val Asp Ala Lys Pro Glu Leu Leu Asp Thr Arg Ile Pro
 260 265 270
 Ser Ala

<210> 11
 <211> 903
 <212> PRT
 <213> Homo sapiens

<400> 11

Met	Thr	Arg	Ser	Cys	Ser	Ala	Val	Gly	Cys	Ser	Thr	Arg	Asp	Thr	Val
1				5					10					15	
Leu	Ser	Arg	Glu	Arg	Gly	Leu	Ser	Phe	His	Gln	Phe	Pro	Thr	Asp	Thr
			20					25					30		
Ile	Gln	Arg	Ser	Lys	Trp	Ile	Arg	Ala	Val	Asn	Arg	Val	Asp	Pro	Arg
		35				40						45			
Ser	Lys	Lys	Ile	Trp	Ile	Pro	Gly	Pro	Gly	Ala	Ile	Leu	Cys	Ser	Lys
	50				55						60				
His	Phe	Gln	Glu	Ser	Asp	Phe	Glu	Ser	Tyr	Gly	Ile	Arg	Arg	Lys	Leu
65					70					75					80
Lys	Lys	Gly	Ala	Val	Pro	Ser	Val	Ser	Leu	Tyr	Lys	Ile	Pro	Gln	Gly
				85					90					95	
Val	His	Leu	Lys	Gly	Lys	Ala	Arg	Gln	Lys	Ile	Leu	Lys	Gln	Pro	Leu
			100					105					110		
Pro	Asp	Asn	Ser	Gln	Glu	Val	Ala	Thr	Glu	Asp	His	Asn	Tyr	Ser	Leu
		115					120					125			
Lys	Thr	Pro	Leu	Thr	Ile	Gly	Ala	Glu	Lys	Leu	Ala	Glu	Val	Gln	Gln
		130				135					140				
Met	Leu	Gln	Val	Ser	Lys	Lys	Arg	Leu	Ile	Ser	Val	Lys	Asn	Tyr	Arg
145					150					155					160
Met	Ile	Lys	Lys	Arg	Lys	Gly	Leu	Arg	Leu	Ile	Asp	Ala	Leu	Val	Glu
			165					170						175	
Glu	Lys	Leu	Leu	Ser	Glu	Glu	Thr	Glu	Cys	Leu	Leu	Arg	Ala	Gln	Phe
			180					185					190		
Ser	Asp	Phe	Lys	Trp	Glu	Leu	Tyr	Asn	Trp	Arg	Glu	Thr	Asp	Glu	Tyr
		195					200					205			
Ser	Ala	Glu	Met	Lys	Gln	Phe	Ala	Cys	Thr	Leu	Tyr	Leu	Cys	Ser	Ser
	210					215					220				
Lys	Val	Tyr	Asp	Tyr	Val	Arg	Lys	Ile	Leu	Lys	Leu	Pro	His	Ser	Ser
225					230					235					240
Ile	Leu	Arg	Thr	Trp	Leu	Ser	Lys	Cys	Gln	Pro	Ser	Pro	Gly	Phe	Asn
				245				250						255	
Ser	Asn	Ile	Phe	Ser	Phe	Leu	Gln	Arg	Arg	Val	Glu	Asn	Gly	Asp	Gln
		260					265						270		
Leu	Tyr	Gln	Tyr	Cys	Ser	Leu	Leu	Ile	Lys	Ser	Ile	Pro	Leu	Lys	Gln
		275					280					285			
Gln	Leu	Gln	Trp	Asp	Pro	Ser	Ser	His	Ser	Leu	Gln	Gly	Phe	Met	Asp
	290					295					300				
Phe	Gly	Leu	Gly	Lys	Leu	Asp	Ala	Asp	Glu	Thr	Pro	Leu	Ala	Ser	Glu
305					310					315					320
Thr	Val	Leu	Leu	Met	Ala	Val	Gly	Ile	Phe	Gly	His	Trp	Arg	Thr	Pro
			325					330						335	
Leu	Gly	Tyr	Phe	Val	Asn	Arg	Ala	Ser	Gly	Tyr	Leu	Gln	Ala	Gln	
		340					345					350			
Leu	Leu	Arg	Leu	Thr	Ile	Gly	Lys	Leu	Ser	Asp	Ile	Gly	Ile	Thr	Val
		355					360					365			
Leu	Ala	Val	Thr	Ser	Asp	Ala	Thr	Ala	His	Ser	Val	Gln	Met	Ala	Lys
	370					375					380				

Ala	Leu	Gly	Ile	His	Ile	Asp	Gly	Asp	Asp	Met	Lys	Cys	Thr	Phe	Gln
385					390					395					400
His	Pro	Ser	Ser	Ser	Ser	Gln	Gln	Ile	Ala	Tyr	Phe	Phe	Asp	Ser	Cys
				405					410						415
His	Leu	Leu	Arg	Leu	Ile	Arg	Asn	Ala	Phe	Gln	Asn	Phe	Gln	Ser	Ile
			420					425							430
Gln	Phe	Ile	Asn	Gly	Ile	Ala	His	Trp	Gln	His	Leu	Val	Glu	Leu	Val
		435					440					445			
Ala	Leu	Glu	Glu	Gln	Glu	Leu	Ser	Asn	Met	Glu	Arg	Ile	Pro	Ser	Thr
	450					455					460				
Leu	Ala	Asn	Leu	Lys	Asn	His	Val	Leu	Lys	Val	Asn	Ser	Ala	Thr	Gln
465					470					475					480
Leu	Phe	Ser	Glu	Ser	Val	Ala	Ser	Ala	Leu	Glu	Tyr	Leu	Leu	Ser	Leu
			485					490							495
Asp	Leu	Pro	Pro	Phe	Gln	Asn	Cys	Ile	Gly	Thr	Ile	His	Phe	Leu	Arg
			500					505					510		
Leu	Ile	Asn	Asn	Leu	Phe	Asp	Ile	Phe	Asn	Ser	Arg	Asn	Cys	Tyr	Gly
		515					520					525			
Lys	Gly	Leu	Lys	Gly	Pro	Leu	Leu	Pro	Glu	Thr	Tyr	Ser	Lys	Ile	Asn
	530					535					540				
His	Val	Leu	Ile	Glu	Ala	Lys	Thr	Ile	Phe	Val	Thr	Leu	Ser	Asp	Thr
545					550					555					560
Ser	Asn	Asn	Gln	Ile	Ile	Lys	Gly	Lys	Gln	Lys	Leu	Gly	Phe	Leu	Gly
			565					570							575
Phe	Leu	Leu	Asn	Ala	Glu	Ser	Leu	Lys	Trp	Leu	Tyr	Gln	Asn	Tyr	Val
			580					585					590		
Phe	Pro	Lys	Val	Met	Pro	Phe	Pro	Tyr	Leu	Leu	Thr	Tyr	Lys	Phe	Ser
		595					600					605			
His	Asp	His	Leu	Glu	Leu	Phe	Leu	Lys	Met	Leu	Arg	Gln	Val	Leu	Val
	610					615					620				
Thr	Ser	Ser	Ser	Pro	Thr	Cys	Met	Ala	Phe	Gln	Lys	Ala	Tyr	Tyr	Asn
625					630					635					640
Leu	Glu	Thr	Arg	Tyr	Lys	Phe	Gln	Asp	Glu	Val	Phe	Leu	Ser	Lys	Val
			645					650							655
Ser	Ile	Phe	Asp	Ile	Ser	Ile	Ala	Arg	Arg	Lys	Asp	Leu	Ala	Leu	Trp
			660					665					670		
Thr	Val	Gln	Arg	Gln	Tyr	Gly	Val	Ser	Val	Thr	Lys	Thr	Val	Phe	His
		675					680						685		
Glu	Glu	Gly	Ile	Cys	Gln	Asp	Trp	Ser	His	Cys	Ser	Leu	Ser	Glu	Ala
	690					695					700				
Leu	Leu	Asp	Leu	Ser	Asp	His	Arg	Arg	Asn	Leu	Ile	Cys	Tyr	Ala	Gly
705					710					715					720
Tyr	Val	Ala	Asn	Lys	Leu	Ser	Ala	Leu	Leu	Thr	Cys	Glu	Asp	Cys	Ile
			725						730						735
Thr	Ala	Leu	Tyr	Ala	Ser	Asp	Leu	Lys	Ala	Ser	Lys	Ile	Gly	Ser	Leu
			740					745					750		
Leu	Phe	Val	Lys	Lys	Lys	Asn	Gly	Leu	His	Phe	Pro	Ser	Glu	Ser	Leu
		755					760					765			
Cys	Arg	Val	Ile	Asn	Ile	Cys	Glu	Arg	Val	Val	Arg	Thr	His	Ser	Arg
	770					775					780				
Met	Ala	Ile	Phe	Glu	Leu	Val	Ser	Lys	Gln	Arg	Glu	Leu	Tyr	Leu	Gln
785					790					795					800
Gln	Lys	Ile	Leu	Cys	Glu	Leu	Ser	Gly	His	Ile	Asp	Leu	Phe	Val	Asp
			805						810						815
Val	Asn	Lys	His	Leu	Phe	Asp	Gly	Glu	Val	Cys	Ala	Ile	Asn	His	Phe
		820						825					830		
Val	Lys	Leu	Leu	Lys	Asp	Ile	Ile	Ile	Cys	Phe	Leu	Asn	Ile	Arg	Ala

<400> 13

Met	Pro	Gly	Phe	Thr	Cys	Cys	Val	Pro	Gly	Cys	Tyr	Asn	Asn	Ser	His
1				5					10					15	
Arg	Asp	Lys	Ala	Leu	His	Phe	Tyr	Thr	Phe	Pro	Lys	Asp	Ala	Glu	Leu
			20					25					30		
Arg	Arg	Leu	Trp	Leu	Lys	Asn	Val	Ser	Arg	Ala	Gly	Val	Ser	Gly	Cys
		35					40					45			
Phe	Ser	Thr	Phe	Gln	Pro	Thr	Thr	Gly	His	Arg	Leu	Cys	Ser	Val	His
	50					55					60				
Phe	Gln	Gly	Gly	Arg	Lys	Thr	Tyr	Thr	Val	Arg	Val	Pro	Thr	Ile	Phe
65					70					75				80	
Pro	Leu	Arg	Gly	Val	Asn	Glu	Arg	Lys	Val	Ala	Arg	Arg	Pro	Ala	Gly
				85					90					95	
Ala	Ala	Ala	Ala	Arg	Arg	Arg	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln
			100					105					110		
Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln
			115					120					125		
Gln	Gln	Gln	Gln	Ser	Ser	Pro	Ser	Ala	Ser	Thr	Ala	Gln	Thr	Ala	Gln
	130					135					140				
Leu	Gln	Pro	Asn	Leu	Val	Ser	Ala	Ser	Ala	Ala	Val	Leu	Leu	Thr	Leu
145					150					155				160	
Gln	Ala	Thr	Val	Asp	Ser	Ser	Gln	Ala	Pro	Gly	Ser	Val	Gln	Pro	Ala
				165					170					175	
Pro	Ile	Thr	Pro	Thr	Gly	Glu	Asp	Val	Lys	Pro	Ile	Asp	Leu	Thr	Val
		180						185					190		
Gln	Val	Glu	Phe	Ala	Ala	Ala	Glu	Gly	Ala	Ala	Ala	Ala	Ala	Ala	Ala
	195						200					205			
Ser	Glu	Leu	Gln	Ala	Ala	Thr	Ala	Gly	Leu	Glu	Ala	Ala	Glu	Cys	Pro
	210					215					220				
Met	Gly	Pro	Gln	Leu	Val	Val	Val	Gly	Glu	Glu	Gly	Phe	Pro	Asp	Thr
225					230				235					240	
Gly	Ser	Asp	His	Ser	Tyr	Ser	Leu	Ser	Ser	Gly	Thr	Thr	Glu	Glu	Glu
			245						250					255	
Leu	Leu	Arg	Lys	Leu	Asn	Glu	Gln	Arg	Asp	Ile	Leu	Ala	Leu	Met	Glu
			260					265					270		
Val	Lys	Met	Lys	Glu	Met	Lys	Gly	Ser	Ile	Arg	His	Leu	Arg	Leu	Thr
	275						280					285			
Glu	Ala	Lys	Leu	Arg	Glu	Glu	Leu	Arg	Glu	Lys	Asp	Arg	Leu	Leu	Ala
	290					295					300				
Met	Ala	Val	Ile	Arg	Lys	Lys	His	Gly	Met						
305					310										

<210> 14

<211> 761

<212> PRT

<213> Homo sapiens

<400> 14

Met	Pro	Asn	Phe	Cys	Ala	Ala	Pro	Asn	Cys	Thr	Arg	Lys	Ser	Thr	Gln
1				5					10					15	
Ser	Asp	Leu	Ala	Phe	Phe	Arg	Phe	Pro	Arg	Asp	Pro	Ala	Arg	Cys	Gln
			20					25					30		
Lys	Trp	Val	Glu	Asn	Cys	Arg	Arg	Ala	Asp	Leu	Glu	Asp	Lys	Thr	Pro
		35					40					45			
Asp	Gln	Leu	Asn	Lys	His	Tyr	Arg	Leu	Cys	Ala	Lys	His	Phe	Glu	Thr

Ser Leu Thr Ala Val Leu His Ser Leu Asn Glu Val Met Glu Asn Ile
 515 520 525
 Glu Val Tyr His Glu Phe Trp Phe Glu Glu Ala Thr Asn Leu Ala Thr
 530 535 540
 Lys Leu Asp Ile Gln Met Lys Leu Pro Gly Lys Phe Arg Arg Ala His
 545 550 555 560
 Gln Gly Asn Leu Glu Ser Gln Leu Thr Ser Glu Ser Tyr Tyr Lys Glu
 565 570 575
 Thr Leu Ser Val Pro Thr Val Glu His Ile Ile Gln Glu Leu Lys Asp
 580 585 590
 Ile Phe Ser Glu Gln His Leu Lys Ala Leu Lys Cys Leu Ser Leu Val
 595 600 605
 Pro Ser Val Met Gly Gln Leu Lys Phe Asn Thr Ser Glu Glu His His
 610 615 620
 Ala Asp Met Tyr Arg Ser Asp Leu Pro Asn Pro Asp Thr Leu Ser Ala
 625 630 635 640
 Glu Leu His Cys Trp Arg Ile Lys Trp Lys His Arg Gly Lys Asp Ile
 645 650 655
 Glu Leu Pro Ser Thr Ile Tyr Glu Ala Leu His Leu Pro Asp Ile Lys
 660 665 670
 Phe Phe Pro Asn Val Tyr Ala Leu Leu Lys Val Leu Cys Ile Leu Pro
 675 680 685
 Val Met Lys Val Glu Asn Glu Arg Tyr Glu Asn Gly Arg Lys Arg Leu
 690 695 700
 Lys Ala Tyr Leu Arg Asn Thr Leu Thr Asp Gln Arg Ser Ser Asn Leu
 705 710 715 720
 Ala Leu Leu Asn Ile Asn Phe Asp Ile Lys His Asp Leu Asp Leu Met
 725 730 735
 Val Asp Thr Tyr Ile Lys Leu Tyr Thr Ser Lys Ser Glu Leu Pro Thr
 740 745 750
 Asp Asn Ser Glu Thr Val Glu Asn Thr
 755 760

<210> 15
 <211> 38
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Consensus sequence for PAR4 binding domain of THAP

<221> UNSURE
 <222> (1)...(38)
 <223> Xaa = Any Amino Acid

<400> 15
 Leu Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1 5 10 15
 Gln Arg Xaa Arg Arg Gln Xaa Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30
 Xaa Xaa Xaa Gln Xaa Glu
 35

<210> 16
 <211> 73

<212> PRT

<213> Sus scrofa

<400> 16

Met	Val	Gln	Ser	Cys	Ser	Ala	Tyr	Gly	Cys	Lys	Asn	Arg	Tyr	Asp	Lys
1				5					10					15	
Asp	Lys	Pro	Val	Ser	Phe	His	Lys	Phe	Pro	Leu	Thr	Arg	Pro	Ser	Leu
			20					25					30		
Cys	Lys	Lys	Trp	Glu	Ala	Ala	Val	Arg	Arg	Lys	Asn	Phe	Lys	Pro	Thr
		35					40					45			
Lys	Tyr	Ser	Ser	Ile	Cys	Ser	Glu	His	Phe	Thr	Pro	Asp	Cys	Phe	Lys
	50					55						60			
Arg	Glu	Cys	Asn	Asn	Lys	Leu	Leu	Lys							
65					70										

<210> 17

<211> 99

<212> PRT

<213> Sus scrofa

<400> 17

Met	Val	Lys	Cys	Cys	Ser	Ala	Ile	Gly	Cys	Ala	Ser	Arg	Cys	Leu	Pro
1				5					10					15	
Asn	Ser	Lys	Leu	Lys	Gly	Leu	Thr	Phe	His	Val	Phe	Pro	Thr	Asp	Glu
			20					25					30		
Lys	Val	Lys	Arg	Lys	Trp	Val	Leu	Ala	Met	Lys	Arg	Leu	Asp	Val	Asn
		35					40					45			
Ala	Ala	Gly	Met	Trp	Glu	Pro	Lys	Lys	Gly	Asp	Val	Leu	Cys	Ser	Arg
	50					55					60				
His	Phe	Lys	Lys	Thr	Asp	Phe	Asp	Arg	Thr	Thr	Pro	Asn	Ile	Lys	Leu
65					70				75						80
Lys	Pro	Gly	Val	Ile	Pro	Ser	Ile	Phe	Asp	Ser	Pro	Ser	His	Leu	Thr
				85					90					95	
Gly	Glu	Glu													

<210> 18

<211> 103

<212> PRT

<213> Sus scrofa

<400> 18

Met	Pro	Arg	His	Cys	Ser	Ala	Ala	Gly	Cys	Cys	Thr	Arg	Asp	Thr	Arg
1				5					10					15	
Glu	Thr	Arg	Asn	Arg	Gly	Ile	Ser	Phe	His	Arg	Leu	Pro	Lys	Lys	Asp
			20					25					30		
Asn	Pro	Arg	Arg	Gly	Leu	Trp	Leu	Ala	Asn	Cys	Gln	Arg	Leu	Asp	Pro
		35					40					45			
Ser	Gly	Gln	Gly	Leu	Trp	Asp	Pro	Ala	Ser	Glu	Tyr	Ile	Tyr	Phe	Cys
	50					55					60				
Ser	Lys	His	Phe	Glu	Glu	Asn	Cys	Phe	Glu	Leu	Val	Gly	Ile	Ser	Gly
65					70					75					80
Tyr	His	Arg	Leu	Lys	Glu	Gly	Ala	Val	Pro	Thr	Ile	Phe	Glu	Ser	Phe
				85					90					95	
Ser	Lys	Leu	Arg	Arg	Thr	Ala									

100

<210> 19
 <211> 99
 <212> PRT
 <213> Sus scrofa

<400> 19
 Met Thr Arg Ser Cys Ser Ala Val Gly Cys Ser Thr Arg Asp Thr Val
 1 5 10 15
 Leu Ser Arg Glu Arg Gly Leu Ser Phe His Gln Phe Pro Thr Asp Thr
 20 25 30
 Ile Gln Arg Ser Gln Trp Ile Arg Ala Val Asn Arg Met Asp Pro Arg
 35 40 45
 Ser Lys Lys Ile Trp Ile Pro Gly Pro Gly Ala Met Leu Cys Ser Lys
 50 55 60
 His Phe Gln Glu Ser Asp Phe Glu Ser Tyr Gly Ile Arg Arg Lys Leu
 65 70 75 80
 Lys Lys Gly Ala Val Pro Ser Val Ser Leu Tyr Lys Val Leu Gln Gly
 85 90 95
 Ala His Leu

<210> 20
 <211> 92
 <212> PRT
 <213> Bos taurus

<400> 20
 Met Pro Lys Ser Cys Ala Ala Arg Gln Cys Cys Asn Arg Tyr Ser Asn
 1 5 10 15
 Arg Arg Lys Gln Leu Thr Phe His Arg Phe Pro Phe Ser Arg Pro Glu
 20 25 30
 Leu Leu Lys Glu Trp Val Leu Asn Ile Gly Arg Gly Asp Phe Glu Pro
 35 40 45
 Lys Gln His Thr Val Ile Cys Ser Glu His Phe Arg Pro Glu Cys Phe
 50 55 60
 Ser Ala Phe Gly Asn Arg Lys Asn Leu Lys His Asn Ala Val Pro Thr
 65 70 75 80
 Val Phe Ala Phe Gln Gly Pro Pro Gln Leu Val Arg
 85 90

<210> 21
 <211> 75
 <212> PRT
 <213> Bos taurus

<400> 21
 Arg Leu Pro Lys Lys Asp Asn Pro Arg Arg Gly Leu Trp Leu Ala Asn
 1 5 10 15
 Cys Gln Arg Leu Asp Pro Ser Gly Gln Gly Leu Trp Asp Pro Ala Ser
 20 25 30
 Glu Tyr Ile Tyr Phe Cys Ser Lys His Phe Glu Glu Asn Cys Phe Glu
 35 40 45

Leu Val Gly Ile Ser Gly Tyr His Arg Leu Lys Glu Gly Ala Val Pro
 50 55 60
 Thr Ile Phe Glu Ser Phe Ser Lys Leu Arg Arg
 65 70 75

<210> 22
 <211> 91
 <212> PRT
 <213> Mus musculus

<400> 22
 Met Val Gln Ser Cys Ser Ala Tyr Gly Cys Lys Asn Arg Tyr Asp Lys
 1 5 10 15
 Asp Lys Pro Val Ser Phe His Lys Phe Pro Leu Thr Arg Pro Ser Leu
 20 25 30
 Cys Lys Gln Trp Glu Ala Ala Val Lys Arg Lys Asn Phe Lys Pro Thr
 35 40 45
 Lys Tyr Ser Ser Ile Cys Ser Glu His Phe Thr Pro Asp Cys Phe Lys
 50 55 60
 Arg Glu Cys Asn Asn Lys Leu Leu Lys Glu Asn Ala Val Pro Thr Ile
 65 70 75 80
 Phe Leu Tyr Ile Glu Pro His Glu Lys Lys Glu
 85 90

<210> 23
 <211> 90
 <212> PRT
 <213> Mus musculus

<400> 23
 Met Pro Thr Asn Cys Ala Ala Ala Gly Cys Ala Ala Thr Tyr Asn Lys
 1 5 10 15
 His Ile Asn Ile Ser Phe His Arg Phe Pro Leu Asp Pro Lys Arg Arg
 20 25 30
 Lys Glu Trp Val Arg Leu Val Arg Arg Lys Asn Phe Val Pro Gly Lys
 35 40 45
 His Thr Phe Leu Cys Ser Lys His Phe Glu Ala Ser Cys Phe Asp Leu
 50 55 60
 Thr Gly Gln Thr Arg Arg Leu Lys Met Asp Ala Val Pro Thr Ile Phe
 65 70 75 80
 Asp Phe Cys Thr His Ile Lys Ser Leu Lys
 85 90

<210> 24
 <211> 92
 <212> PRT
 <213> Mus musculus

<400> 24
 Met Pro Lys Ser Cys Ala Ala Arg Gln Cys Cys Asn Arg Tyr Ser Ser
 1 5 10 15
 Arg Arg Lys Gln Leu Thr Phe His Arg Phe Pro Phe Ser Arg Pro Glu
 20 25 30
 Leu Leu Arg Glu Trp Val Leu Asn Ile Gly Arg Ala Asp Phe Lys Pro

	35					40					45						
Lys	Gln	His	Thr	Val	Ile	Cys	Ser	Glu	His	Phe	Arg	Pro	Glu	Cys	Phe		
	50					55					60						
Ser	Ala	Phe	Gly	Asn	Arg	Lys	Asn	Leu	Lys	His	Asn	Ala	Val	Pro	Thr		
65					70					75					80		
Val	Phe	Ala	Phe	Gln	Asn	Pro	Thr	Glu	Val	Cys	Pro						
				85					90								

<210> 25
 <211> 95
 <212> PRT
 <213> Mus musculus

Met	Val	Ile	Cys	Cys	Ala	Ala	Val	Asn	Cys	Ser	Asn	Arg	Gln	Gly	Lys		
1				5					10					15			
Gly	Glu	Lys	Arg	Ala	Val	Ser	Phe	His	Arg	Phe	Pro	Leu	Lys	Asp	Ser		
			20					25					30				
Lys	Arg	Leu	Ile	Gln	Trp	Leu	Lys	Ala	Val	Gln	Arg	Asp	Asn	Trp	Thr		
		35					40					45					
Pro	Thr	Lys	Tyr	Ser	Phe	Leu	Cys	Ser	Glu	His	Phe	Thr	Lys	Asp	Ser		
	50					55					60						
Phe	Ser	Lys	Arg	Leu	Glu	Asp	Gln	His	Arg	Leu	Leu	Lys	Pro	Thr	Ala		
65				70					75						80		
Val	Pro	Ser	Ile	Phe	His	Leu	Ser	Glu	Lys	Lys	Arg	Gly	Ala	Gly			
				85					90					95			

<210> 26
 <211> 52
 <212> PRT
 <213> Mus musculus

Ile	Leu	Gln	Ala	Phe	Gly	Ser	Leu	Lys	Lys	Gly	Asp	Val	Leu	Cys	Ser		
1				5					10					15			
Arg	His	Phe	Lys	Lys	Thr	Asp	Phe	Asp	Arg	Ser	Thr	Leu	Asn	Thr	Lys		
			20					25					30				
Leu	Lys	Ala	Gly	Ala	Ile	Pro	Ser	Ile	Phe	Glu	Cys	Pro	Tyr	His	Leu		
		35					40					45					
Gln	Glu	Lys	Arg														
	50																

<210> 27
 <211> 103
 <212> PRT
 <213> Mus musculus

Met	Pro	Arg	His	Cys	Ser	Ala	Ala	Gly	Cys	Cys	Thr	Arg	Asp	Thr	Arg		
1				5					10					15			
Glu	Thr	Arg	Asn	Arg	Gly	Ile	Ser	Phe	His	Arg	Leu	Pro	Lys	Lys	Asp		
			20					25					30				
Asn	Pro	Arg	Arg	Gly	Leu	Trp	Leu	Ala	Asn	Cys	Gln	Arg	Leu	Asp	Pro		
		35					40					45					

Ser Gly Gln Gly Leu Trp Asp Pro Thr Ser Glu Tyr Ile Tyr Phe Cys
50 55 60
Ser Lys His Phe Glu Glu Asn Cys Phe Glu Leu Val Gly Ile Ser Gly
65 70 75 80
Tyr His Arg Leu Lys Glu Gly Ala Val Pro Thr Ile Phe Glu Ser Phe
85 90 95
Ser Lys Leu Arg Arg Thr Ala
100

<210> 28
<211> 90
<212> PRT
<213> Mus musculus

<400> 28
Met Pro Gly Phe Thr Cys Cys Val Pro Gly Cys Tyr Asn Asn Ser His
1 5 10 15
Arg Asp Lys Ala Leu His Phe Tyr Thr Phe Pro Lys Asp Ala Glu Leu
20 25 30
Arg Arg Leu Trp Leu Lys Asn Val Ser Arg Ala Gly Val Ser Gly Cys
35 40 45
Phe Ser Thr Phe Gln Pro Thr Thr Gly His Arg Leu Cys Ser Val His
50 55 60
Phe Gln Gly Gly Arg Lys Thr Tyr Thr Val Arg Val Pro Thr Ile Phe
65 70 75 80
Pro Leu Arg Gly Val Asn Glu Arg Lys Val
85 90

<210> 29
<211> 96
<212> PRT
<213> Mus musculus

<400> 29
Met Pro Asn Phe Cys Ala Ala Pro Asn Cys Thr Arg Lys Ser Thr Gln
1 5 10 15
Ser Asp Leu Ala Phe Phe Arg Phe Pro Arg Asp Pro Ala Arg Cys Gln
20 25 30
Lys Trp Val Glu Asn Cys Arg Arg Ala Asp Leu Glu Asp Lys Thr Pro
35 40 45
Asp Gln Leu Asn Lys His Tyr Arg Leu Cys Ala Lys His Phe Glu Thr
50 55 60
Ser Met Ile Cys Arg Thr Ser Pro Tyr Arg Thr Val Leu Arg Asp Asn
65 70 75 80
Ala Ile Pro Thr Ile Phe Asp Leu Thr Ser His Leu Asn Asn Pro His
85 90 95

<210> 30
<211> 24
<212> PRT
<213> Rattus norvegicus

<400> 30
Met Pro Thr Asn Cys Ala Ala Ala Gly Cys Ala Ala Thr Tyr Asn Lys

<210> 34
 <211> 103
 <212> PRT
 <213> Rattus norvegicus

<400> 34
 Met Pro Arg His Cys Ser Ala Ala Gly Cys Cys Thr Arg Asp Thr Arg
 1 5 10 15
 Glu Thr Arg Asn Arg Gly Ile Ser Phe His Arg Leu Pro Lys Lys Asp
 20 25 30
 Asn Pro Arg Arg Gly Leu Trp Leu Ala Asn Cys Gln Arg Leu Asp Pro
 35 40 45
 Ser Gly Gln Gly Leu Trp Asp Pro Thr Ser Glu Tyr Ile Tyr Phe Cys
 50 55 60
 Ser Lys His Phe Glu Glu Asn Cys Phe Glu Leu Val Gly Ile Ser Gly
 65 70 75 80
 Tyr His Arg Leu Lys Glu Gly Ala Val Pro Thr Ile Phe Glu Ser Phe
 85 90 95
 Ser Lys Leu Arg Arg Thr Ala
 100

<210> 35
 <211> 90
 <212> PRT
 <213> Rattus norvegicus

<400> 35
 Met Pro Gly Phe Thr Cys Cys Val Pro Gly Cys Tyr Asn Asn Ser His
 1 5 10 15
 Arg Asp Lys Ala Leu His Phe Tyr Thr Phe Pro Lys Asp Ala Glu Leu
 20 25 30
 Arg Arg Leu Trp Leu Lys Asn Val Ser Arg Ala Gly Val Ser Gly Cys
 35 40 45
 Phe Ser Thr Phe Gln Pro Thr Thr Gly His Arg Leu Cys Ser Val His
 50 55 60
 Phe Gln Gly Gly Arg Lys Thr Tyr Thr Val Arg Val Pro Thr Ile Phe
 65 70 75 80
 Pro Leu Arg Gly Val Asn Glu Arg Lys Val
 85 90

<210> 36
 <211> 96
 <212> PRT
 <213> Rattus norvegicus

<400> 36
 Met Pro Asn Phe Cys Ala Ala Pro Asn Cys Thr Arg Lys Ser Thr Gln
 1 5 10 15
 Ser Asp Leu Ala Phe Phe Arg Phe Pro Arg Asp Pro Ala Arg Cys Gln
 20 25 30
 Lys Trp Val Glu Asn Cys Arg Arg Ala Asp Leu Glu Asp Lys Thr Pro
 35 40 45
 Asp Gln Leu Asn Lys His Tyr Arg Leu Cys Ala Lys His Phe Glu Thr

50		55		60
Ser Met Ile Cys Arg Thr Ser Pro Tyr Arg Thr Val Leu Arg Asp Asn				
65	70	75	80	
Ala Ile Pro Thr Ile Phe Asp Leu Thr Ser His Leu Asn Asn Pro His				
85	90	95		

<210> 37
 <211> 94
 <212> PRT
 <213> Gallus gallus

<400> 37	
Met Val Ile Cys Cys Ala Ala Ala Asn Cys Ser Asn Arg Gln Gly Lys	
1	5 10 15
Ala Leu Arg Gly Ala Val Ser Phe His Arg Phe Pro Leu Lys Asp Ser	
20	25 30
Lys Arg Leu Ile Gln Trp Leu Lys Ala Val Gln Arg Asp Asn Trp Thr	
35	40 45
Pro Thr Lys Tyr Ser Phe Leu Cys Ser Glu His Phe Thr Lys Asp Ser	
50	55 60
Phe Ser Arg Arg Leu Glu Asp Gln His Arg Leu Leu Lys Pro Thr Ala	
65	70 75 80
Val Pro Thr Ile Phe Gln Leu Ala Glu Lys Lys Arg Asp Asn	
85	90

<210> 38
 <211> 94
 <212> PRT
 <213> Gallus gallus

<400> 38	
Met Pro Arg Tyr Cys Ala Ala Ser Tyr Cys Lys Asn Arg Gly Gly Gln	
1	5 10 15
Ser Ala Arg Asp Gln Arg Lys Leu Ser Phe Tyr Pro Phe Pro Leu His	
20	25 30
Asp Lys Glu Arg Leu Glu Lys Trp Leu Arg Asn Met Lys Arg Asp Ala	
35	40 45
Trp Thr Pro Ser Lys His Gln Leu Leu Cys Ser Asp His Phe Thr Pro	
50	55 60
Asp Ser Leu Asp Val Arg Trp Gly Ile Arg Tyr Leu Lys His Thr Ala	
65	70 75 80
Val Pro Thr Ile Phe Ser Ser Pro Asp Asp Glu Glu Lys Gly	
85	90

<210> 39
 <211> 102
 <212> PRT
 <213> Gallus gallus

<400> 39	
Met Pro Arg His Cys Ser Ala Ala Gly Cys Cys Thr Arg Asp Thr Arg	
1	5 10 15
Glu Thr Arg Ser Arg Gly Ile Ser Phe His Arg Leu Pro Lys Lys Asp	
20	25 30

Asn Pro Arg Arg Ala Leu Trp Leu Glu Asn Ser Arg Arg Arg Asp Ala
 35 40 45
 Ser Gly Glu Gly Arg Trp Asp Pro Ala Ser Lys Tyr Ile Tyr Phe Cys
 50 55 60
 Ser Gln His Phe Glu Lys Ser Cys Phe Glu Ile Val Gly Phe Ser Gly
 65 70 75 80
 Tyr His Arg Leu Lys Glu Gly Ala Val Pro Thr Val Phe Glu Ser Thr
 85 90 95
 Ser Pro Arg Pro Pro Arg
 100

<210> 40
 <211> 27
 <212> PRT
 <213> Gallus gallus

<400> 40
 Met Thr Arg Ser Cys Ser Ala Leu Gly Cys Ser Ala Arg Asp Asn Gly
 1 5 10 15
 Arg Ser Arg Glu Arg Gly Ile Ser Phe His Gln
 20 25

<210> 41
 <211> 90
 <212> PRT
 <213> Xenopus laevi

<400> 41
 Met Val Gln Ser Cys Ser Ala Tyr Gly Cys Lys Asn Arg Tyr Asp Lys
 1 5 10 15
 Asp Arg Pro Ile Ser Phe His Lys Phe Pro Leu Lys Arg Pro Leu Leu
 20 25 30
 Cys Lys Lys Trp Glu Ala Ala Val Arg Arg Ala Asp Phe Lys Pro Thr
 35 40 45
 Lys Tyr Ser Ser Ile Cys Ser Asp His Phe Thr Ala Asp Cys Phe Lys
 50 55 60
 Arg Glu Cys Asn Asn Lys Leu Leu Lys Asp Asn Ala Val Pro Thr Val
 65 70 75 80
 Phe Ala Leu Ala Glu Ile Lys Lys Lys Met
 85 90

<210> 42
 <211> 103
 <212> PRT
 <213> Xenopus laevi

<400> 42
 Met Pro Arg His Cys Ser Ala Leu Gly Cys Thr Thr Arg Asp Ser Arg
 1 5 10 15
 Gln Thr Arg Asn Asn Asn Ile Ser Phe His Arg Leu Pro Arg Lys Asp
 20 25 30
 Asp Pro Arg Arg Asn Leu Trp Ile Ala Asn Cys Gln Arg Thr Asp Pro
 35 40 45
 Ser Gly Lys Gly Leu Trp Asp Pro Ser Ser Asp Tyr Val Tyr Phe Cys

50					55					60					
Ser	Lys	His	Phe	Glu	Lys	Ser	Cys	Phe	Glu	Val	Val	Gly	Thr	Ser	Gly
65					70					75					80
Tyr	His	Arg	Leu	Lys	Glu	Asp	Ala	Val	Pro	Thr	Leu	Phe	Leu	Ser	Ser
				85					90					95	
Ala	Lys	Leu	Arg	Arg	Ala	Ala									
				100											

<210> 43
 <211> 90
 <212> PRT
 <213> *Xenopus laevis*

<400> 43															
Met	Val	Arg	Ser	Cys	Ser	Ala	Ala	Asn	Cys	Val	Asn	Arg	Gln	Thr	Ala
1				5					10					15	
Leu	Asn	Lys	Arg	Lys	Gly	Ile	Thr	Phe	His	Arg	Phe	Pro	Lys	Glu	Gln
			20					25					30		
Ala	Arg	Arg	Gln	Leu	Trp	Ile	Thr	Ala	Val	Thr	His	Ser	His	Ala	Ala
			35				40					45			
Val	Gly	Thr	Asp	Trp	Thr	Pro	Ser	Ile	His	Ser	Ser	Leu	Cys	Ser	Gln
	50					55				60					
His	Phe	Asn	Asn	Thr	Gln	Phe	Asp	Arg	Thr	Gly	Gln	Thr	Val	Arg	Leu
65					70					75					80
Arg	Asp	Ser	Ala	Val	Pro	Thr	Val	Phe	Ser						
				85					90						

<210> 44
 <211> 99
 <212> PRT
 <213> *Xenopus laevis*

<400> 44															
Met	Pro	Val	Ser	Cys	Ala	Ala	Ser	Gly	Cys	Lys	Ser	Arg	Tyr	Thr	Met
1				5					10					15	
Asp	Ala	Arg	Glu	Lys	Gly	Ile	Thr	Phe	His	Arg	Phe	Pro	Arg	Ser	Asn
			20					25					30		
Pro	Thr	Leu	Leu	Glu	Lys	Trp	Arg	Leu	Ala	Met	Arg	Arg	Ser	Thr	Arg
			35				40					45			
Asn	Gly	Glu	Leu	Trp	Met	Pro	Ser	Arg	Tyr	Gln	Arg	Leu	Cys	Ser	Leu
	50					55				60					
His	Phe	Lys	Gln	Cys	Cys	Phe	Asp	Thr	Thr	Gly	Gln	Thr	Lys	Arg	Leu
65					70					75					80
Arg	Glu	Asp	Val	Ile	Pro	Thr	Ile	Phe	Asp	Phe	Pro	Glu	Glu	Thr	His
				85					90					95	
Val	Ile	Phe													

<210> 45
 <211> 90
 <212> PRT
 <213> *Xenopus laevis*

<400> 45

Met	Pro	Ala	Cys	Ala	Ala	Ile	Asn	Cys	Thr	Ser	Arg	Gln	Thr	Arg	Gly
1				5					10					15	
Cys	Gly	Lys	Ser	Phe	His	Lys	Phe	Pro	His	Gly	Arg	Pro	Glu	Val	Leu
			20					25					30		
Lys	Lys	Trp	Val	Met	Asn	Met	Arg	Arg	Asp	Lys	Phe	Lys	Pro	Ser	Ser
		35					40					45			
Lys	Ala	Val	Leu	Cys	Ser	Asp	His	Phe	Glu	Glu	Phe	Cys	Phe	Asp	Arg
		50				55					60				
Thr	Gly	Gln	Thr	Ile	Arg	Leu	Arg	Thr	Asp	Ala	Val	Pro	Thr	Val	Phe
65					70				75						80
Thr	Phe	Pro	Gly	Lys	Met	Lys	Lys	Asp	Arg						
				85					90						

<210> 46

<211> 105

<212> PRT

<213> *Xenopus laevis*

<400> 46

Met	Pro	His	Cys	Val	Val	Ser	Asn	Cys	Val	His	Phe	Asn	Tyr	Lys	Lys
1				5					10					15	
Ser	Asn	Leu	His	Gly	Val	Ala	Leu	His	Pro	Phe	Pro	Asn	Asp	Leu	Ser
			20					25					30		
Arg	Ile	Lys	Leu	Trp	Leu	Gln	Gln	Ile	Gly	Leu	Thr	Thr	Asp	Glu	Ile
		35					40					45			
Asp	Tyr	Leu	Ala	Gln	Lys	Val	Val	Glu	Gly	Lys	Arg	Lys	Lys	Thr	Asp
		50				55					60				
Ser	His	Arg	Met	Cys	Ser	Ala	His	Phe	Thr	Pro	Asn	Cys	Tyr	Ile	Val
65					70				75						80
Gln	Asp	Ala	Lys	Leu	Val	Leu	Arg	Ser	Asp	Ala	Ile	Pro	Thr	Met	Phe
			85						90					95	
Pro	Gly	Leu	Ser	Ser	Ser	Thr	Thr	Asn							
			100					105							

<210> 47

<211> 104

<212> PRT

<213> *Xenopus laevis*

<400> 47

Met	Pro	Lys	Cys	Ile	Val	Thr	Lys	Cys	Pro	His	Lys	Thr	Gly	Gln	Lys
1				5					10					15	
Glu	Leu	Tyr	Pro	Ser	Val	Ile	Leu	His	Pro	Phe	Pro	Gly	Asn	Ile	Glu
			20					25					30		
Lys	Ile	Lys	Gln	Trp	Leu	Leu	Gln	Thr	Gly	Glu	Asp	Tyr	Gly	Asp	Tyr
		35					40					45			
Glu	Val	Phe	Ala	Glu	Lys	Val	Leu	Glu	Ala	Lys	Lys	Thr	Asp	Ala	Tyr
		50				55					60				
Arg	Ile	Cys	Ser	Arg	His	Phe	Ala	Glu	Asp	Gln	Tyr	Val	Lys	Arg	Gly
65					70				75						80
Pro	Arg	Lys	Leu	Leu	Ser	Lys	Asp	Ala	Val	Pro	Thr	Ile	Phe	Ser	Asn
			85						90					95	
Leu	His	Pro	Leu	Ile	Gln	Leu	His								
			100												

<210> 48
 <211> 102
 <212> PRT
 <213> Xenopus laevis

<400> 48
 Met Pro Arg Cys Val Val Lys Asn Cys Pro His Trp Thr Gly Lys Lys
 1 5 10 15
 Gly Ser Gln Val Ile Leu His Gly Phe Pro Asn Asn Ser Arg Leu Ile
 20 25 30
 Lys Leu Trp Leu Ser Gln Thr Lys Gln Asp Phe Gly Asp Val Glu Asp
 35 40 45
 Phe Thr Gln Lys Ile Leu Glu Gly Lys Lys Asn Asp Leu Tyr Arg Leu
 50 55 60
 Cys Ser Lys His Phe Thr Asn Asp Ser Tyr Glu Ile Arg Gly Thr Lys
 65 70 75 80
 Arg Phe Leu Lys Tyr Gly Ala Val Pro Thr Val Phe Glu Asp Thr Pro
 85 90 95
 Pro Leu Lys Arg Arg Lys
 100

<210> 49
 <211> 104
 <212> PRT
 <213> Xenopus laevis

<400> 49
 Met Pro Asn Cys Ile Val Lys Asp Cys Arg His Lys Ser Gly Gln Lys
 1 5 10 15
 Ile Gln Asn Pro Asp Val Val Leu His Pro Phe Pro Asn Asn Ile Asn
 20 25 30
 Met Ile Lys Asn Trp Leu Leu Gln Thr Gly Gln Asp Phe Gly Asp Ile
 35 40 45
 Asp Val Leu Ala Asp Lys Ile Leu Lys Gly Lys Lys Thr Ala Asn Phe
 50 55 60
 Arg Met Cys Ser Cys His Phe Thr Arg Asp Ser Tyr Met Ala Arg Gly
 65 70 75 80
 Ser Lys Thr Thr Leu Lys Pro Asn Ala Ile Pro Thr Ile Phe Pro Val
 85 90 95
 Ile Leu Pro Thr Thr Val Pro Ser
 100

<210> 50
 <211> 99
 <212> PRT
 <213> Xenopus laevis

<400> 50
 Met Pro Lys Cys Phe Val Gln Ser Cys Pro His Tyr Thr Gly Arg Asn
 1 5 10 15
 Gly Lys Pro Asp Asn Val Ile Leu His Thr Phe Pro Arg Cys Lys Lys
 20 25 30
 Gln Val Gln Val Trp Leu Ser Arg Thr Gly Glu Arg Tyr Glu Asn Met
 35 40 45

Ala Glu Phe Val Thr Tyr Ile Thr Gln Arg Cys Ser Asn Phe Arg Met
50 55 60
Cys Ser Glu His Phe Thr Asp Asp Cys Tyr Ile Thr Val Glu Gly Lys
65 70 75 80
Arg Arg Leu Met Glu Asn Ser Ala Pro Thr Ile Phe Lys Thr Thr Phe
85 90 95
Arg Gln Asn

<210> 51
<211> 104
<212> PRT
<213> Xenopus laevi

<400> 51
Met Thr Lys Cys Ile Val Lys Gly Cys Arg His Thr Thr Gly Gln Lys
1 5 10 15
Leu Lys Phe Pro His Ile Val Met His Ala Phe Pro Ser Asn Leu Lys
20 25 30
Met Ile Lys Val Trp Leu Lys Gln Thr Gly Gln Tyr Gly Asn Asn Leu
35 40 45
Glu Glu Met Ala Leu Lys Val Leu Gly Gly Lys Lys Ser Asp Ser Tyr
50 55 60
Arg Leu Cys Ser Ala His Phe Thr Val Asp Ser Tyr Ala Leu Arg Arg
65 70 75 80
Ser Lys Asn Met Leu Lys Lys Asp Ala Phe Pro Thr Leu Phe Gly Gln
85 90 95
Asn Gln Ile Asn Ala Ala Asn Val
100

<210> 52
<211> 84
<212> PRT
<213> Xenopus laevi

<400> 52
Met Pro Lys Cys Ile Val Ile His Cys Pro His Ser Cys Ser Lys Lys
1 5 10 15
Val Thr Lys Asn Thr Gly Val Val Met His Thr Phe Pro Phe Asn Leu
20 25 30
Asp Arg Ile Lys Asn Trp Leu Leu Ser Ile Asp Gln Asn Phe Gly Asn
35 40 45
Ile Asp Thr Leu Ala Asn Arg Ile Leu Glu Glu Lys Lys Lys His Ser
50 55 60
Asp Leu Tyr Arg Leu Cys Ser Glu His Phe Thr Pro Gln Cys Tyr Ile
65 70 75 80
Ser Thr Gly Glu

<210> 53
<211> 104
<212> PRT
<213> Xenopus laevi

<400> 53

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Met Pro Ser Cys Ile Val Lys Gly Cys Pro His Arg Thr Gly Gln Lys
 1              5              10              15
Asp Lys Phe Pro Asn Val Thr Leu His Asn Phe Pro Lys Thr Ile Pro
      20              25              30
Lys Ile Lys Asn Trp Leu Trp Gln Thr Gly Gln Tyr Gly Glu Asp Ser
      35              40              45
Asp Ala Ile Ala Glu Glu Ile Leu Gln Gly Leu Lys Thr Cys Arg His
      50              55              60
Arg Met Cys Ser Met His Phe Ser Glu Asn Cys Phe Ile Thr Leu Gly
65              70              75              80
Ser Lys Arg Val Leu Thr Arg Asn Ala Val Pro Thr Ile Phe Lys Pro
      85              90              95
Gln Thr Thr Pro Ala Ile Leu Ala
      100
```

<210> 54

<211> 104

<212> PRT

<213> *Xenopus laevis*

<400> 54

```
Met Pro Lys Cys Ile Leu Asn Gly Cys Pro Tyr Arg Thr Gly Gln Lys
 1              5              10              15
Leu Lys Phe Pro Asp Ile Val Leu His Pro Phe Pro Lys Ser Met Glu
      20              25              30
Met Ile Arg Asn Trp Leu Phe Gln Thr Gly Gln His Ala Glu Asp Val
      35              40              45
Glu Ser Leu Ser Gln Arg Ile Tyr Gln Gly Leu Lys Thr Ser Asn Phe
      50              55              60
Arg Met Cys Ser Lys His Phe Thr Gln Asp Cys Tyr Met Gln Val Gly
65              70              75              80
Ser Arg Lys Cys Leu Lys Pro Asn Ala Val Pro Thr Val Phe Glu Ser
      85              90              95
Tyr Asn Val Pro Val Thr Thr Phe
      100
```

<210> 55

<211> 105

<212> PRT

<213> *Xenopus laevis*

<400> 55

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Asn Asn Ala Ser Cys Ile Val Arg Gly Cys His His Ser Thr Ala Arg
 1              5              10              15
Lys Cys Leu Ser Pro Gly Ile Ala Leu His Gly Phe Pro Asn Asn Leu
      20              25              30
Ser Arg Ile Lys Gln Trp Leu Val Asn Ile Gly Gln Asn Val Gly Asp
      35              40              45
Ile Asp Asp Phe Ala Gln Lys Val Leu Asp Gly Lys Lys Gln Asn Ser
      50              55              60
Tyr Arg Ile Cys Ser Ala His Phe Ser Ser Asp Cys Phe Val Gln Phe
65              70              75              80
Gly Tyr Ser Lys Gly Leu Lys Ala Asp Ala Val Pro Thr Ile Phe Ala
      85              90              95
```

Trp Asn Thr Pro Glu Ser Arg Gly Arg
 100 105

<210> 56
 <211> 107
 <212> PRT
 <213> *Xenopus laevis*

<400> 56
 Met Pro Ser Cys Ile Val Lys Gly Cys Arg His Lys Ser Gly Gln Lys
 1 5 10 15
 Val Leu Tyr Pro Asp Val Val Leu His Ser Phe Pro Asn Asn Ile His
 20 25 30
 Met Ile Lys Asn Trp Leu Leu Gln Thr Gly Gln Val Phe Gly Asp Ile
 35 40 45
 Asp Ala Phe Ala Glu Lys Val Leu Lys Gly Asn Lys Thr Ser Ala Phe
 50 55 60
 Arg Met Cys Ser Arg His Phe Thr Arg Asp Ser Tyr Met Ala Lys Gly
 65 70 75 80
 Ser Lys Ile Thr Leu Lys Pro Asn Ala Val Pro Thr Ile Phe Asn Thr
 85 90 95
 Leu Pro Pro Ala Ala Ala Val Pro Ser Leu Met
 100 105

<210> 57
 <211> 91
 <212> PRT
 <213> *Danio rerio*

<400> 57
 Met Val Gln Ser Cys Ser Ala Tyr Gly Cys Asn Asn Arg Tyr Gln Lys
 1 5 10 15
 Asp Arg Ile Ile Ser Phe His Lys Phe Pro Leu Ala Arg Pro Glu Val
 20 25 30
 Cys Val Gln Trp Val Ser Ala Met Ser Arg Arg Asn Phe Lys Pro Thr
 35 40 45
 Lys Tyr Ser Asn Ile Cys Ser Gln His Phe Thr Ser Asp Cys Phe Lys
 50 55 60
 Gln Glu Cys Asn Asn Arg Val Leu Lys Asp Asn Ala Val Pro Ser Leu
 65 70 75 80
 Phe Thr Leu Gln Thr Gln Asp Pro Phe Ser Ala
 85 90

<210> 58
 <211> 103
 <212> PRT
 <213> *Danio rerio*

<400> 58
 Met Pro Arg His Cys Ser Ala Val Gly Cys Lys Ser Arg Asp Thr Lys
 1 5 10 15
 Asp Val Arg Lys Ser Gly Ile Thr Phe His Arg Leu Pro Lys Lys Gly
 20 25 30
 Asn Pro Arg Arg Thr Thr Trp Ile Ile Asn Ser Arg Arg Lys Gly Pro

	35					40				45									
Glu	Gly	Lys	Gly	Gln	Trp	Asp	Pro	Gln	Ser	Gly	Phe	Ile	Tyr	Phe	Cys				
	50					55					60								
Ser	Lys	His	Phe	Thr	Pro	Asp	Ser	Phe	Glu	Leu	Ser	Gly	Val	Ser	Gly				
65					70					75					80				
Tyr	His	Arg	Leu	Lys	Asp	Asp	Ala	Ile	Pro	Thr	Val	Phe	Glu	Ile	Glu				
			85						90					95					
Pro	His	Lys	Lys	Gly	Thr	Ala													
			100																

<210> 59
 <211> 90
 <212> PRT
 <213> Danio rerio

<400> 59																			
Met	Pro	Gly	Phe	Thr	Cys	Cys	Val	Pro	Gly	Cys	Tyr	Asn	Asn	Ser	His				
1				5					10					15					
Arg	Asp	Arg	Asp	Leu	Arg	Phe	Tyr	Thr	Phe	Pro	Lys	Asp	Pro	Thr	Gln				
			20					25					30						
Arg	Glu	Ile	Trp	Leu	Lys	Asn	Ile	Ser	Arg	Ala	Gly	Val	Ser	Gly	Cys				
		35				40					45								
Phe	Ser	Thr	Phe	Gln	Pro	Thr	Thr	Gly	His	Arg	Val	Cys	Ser	Val	His				
	50					55					60								
Phe	Pro	Gly	Gly	Arg	Lys	Thr	Tyr	Thr	Ile	Arg	Val	Pro	Thr	Leu	Phe				
65					70					75					80				
Pro	Leu	Arg	Gly	Val	Asn	Glu	Arg	Arg	Ser										
				85					90										

<210> 60
 <211> 96
 <212> PRT
 <213> Danio rerio

<400> 60																			
Met	Pro	Asn	Phe	Cys	Ala	Ala	Leu	Asn	Cys	Ser	Arg	Asn	Ser	Thr	His				
1				5					10					15					
Ser	Val	Leu	Ala	Phe	Phe	Arg	Phe	Pro	Arg	Asp	Pro	Glu	Arg	Cys	Lys				
			20					25					30						
Lys	Trp	Val	Glu	Asn	Cys	Ser	Arg	Ser	Asp	Leu	Lys	Asp	Lys	Thr	Pro				
		35				40					45								
Asp	His	Leu	Asn	Lys	Tyr	His	Arg	Leu	Cys	Ala	Arg	His	Phe	Glu	Pro				
	50					55					60								
Asn	Leu	Ile	Thr	Lys	Thr	Ser	Pro	Phe	Arg	Thr	Val	Leu	Lys	Asp	Ser				
65					70					75					80				
Ala	Val	Pro	Thr	Ile	Phe	Asp	Asn	Pro	Phe	Lys	Arg	Ser	Asn	Asn	Glu				
				85					90						95				

<210> 61
 <211> 99
 <212> PRT
 <213> Danio rerio

<400> 61

Met Pro Tyr Lys Cys Val Ala Tyr Gly Cys Gly Lys Ile Ser Gly Gln
 1 5 10 15
 Asn Val Ser Met Phe Arg Phe Pro Lys Asp Pro Glu Glu Phe Ser Lys
 20 25 30
 Trp Gln Arg Gln Val Gln Lys Thr Arg Arg Asn Trp Leu Ala Asn Thr
 35 40 45
 Tyr Ser His Leu Cys Asn Glu His Phe Thr Lys Asp Cys Phe Glu Pro
 50 55 60
 Lys Thr Tyr Val Thr Ala Lys Ala Ser Gly Phe Lys Arg Leu Lys Leu
 65 70 75 80
 Lys Asp Gly Ala Val Pro Thr Val Phe Ile Arg Arg Arg Cys Arg Lys
 85 90 95
 Cys Gly Gly

<210> 62
 <211> 90
 <212> PRT
 <213> Danio rerio

<400> 62
 Met Gly Gly Cys Ser Ala Pro Asn Cys Ser Asn Ser Thr Thr Ile Gly
 1 5 10 15
 Lys Gln Leu Phe Arg Phe Pro Lys Asp Pro Val Arg Met Arg Lys Trp
 20 25 30
 Leu Val Asn Cys Arg Arg Asp Phe Val Pro Thr Pro Cys Ser Arg Leu
 35 40 45
 Cys Gln Asp His Phe Glu Glu Ser Gln Phe Glu Glu Ile Ala Arg Ser
 50 55 60
 Pro Ala Gly Gly Arg Lys Leu Lys Pro Asn Ala Ile Pro Thr Leu Phe
 65 70 75 80
 Asn Val Pro Asp Pro Pro Ser Pro Val Thr
 85 90

<210> 63
 <211> 105
 <212> PRT
 <213> Danio rerio

<400> 63
 Met Val Leu Asn Cys Ala Tyr Pro Gly Cys Leu Asn Leu Phe Lys Lys
 1 5 10 15
 Glu Arg Leu Arg Ser Asn Ser Ser Ser His Gly Gly Lys Leu Thr Phe
 20 25 30
 His Arg Phe Pro Thr Leu Glu Pro Gly Arg Leu Leu Leu Trp Arg Ala
 35 40 45
 Ala Leu Gly Met Asp Pro Asp Thr Pro Met Arg Ser Leu Arg Val Trp
 50 55 60
 Arg Ile Cys Ser Glu His Phe Ser Pro Glu Asp Phe Arg Ala Val Asn
 65 70 75 80
 Gly Asn Lys Val Leu Leu Lys Ala Ser Ala Val Pro Arg Val Tyr Ser
 85 90 95
 Thr Pro Ala Pro Gly Ser Arg Ala Asp
 100 105

<210> 64
 <211> 99
 <212> PRT
 <213> Danio rerio

<400> 64
 Met Ala Ser Ser Arg Arg Cys Tyr Cys Ser Val Pro Gly Cys Ser Asn
 1 5 10 15
 Ser Lys Lys Arg His Pro Tyr Leu Ser Phe His Asp Phe Pro Lys Asp
 20 25 30
 Glu Gly Gln Arg Lys Ser Trp Val Lys Phe Ile Arg Arg Glu Glu Gly
 35 40 45
 Pro Phe Phe Gln Ile Lys Arg Gly Ser Thr Phe Val Cys Ser Met His
 50 55 60
 Phe Lys Ala Asp Asp Ile Tyr Thr Thr Ile Ser Gly Arg Arg Lys Ile
 65 70 75 80
 Asn Pro Gly Ala Ala Pro Arg Leu Phe Ser Trp Asn Asn Trp Ser Thr
 85 90 95
 Asp Lys Val

<210> 65
 <211> 66
 <212> PRT
 <213> Danio rerio

<400> 65
 Phe Pro Lys Glu Asn Val Leu Arg Lys Gln Trp Glu Ile Ala Leu Lys
 1 5 10 15
 Arg Lys Gly Phe Ser Ala Ser Glu Ser Ser Val Leu Cys Ser Glu His
 20 25 30
 Phe Arg Pro Gln Asp Leu Asp Arg Thr Gly Gln Thr Val Arg Val Arg
 35 40 45
 Asp Gly Ala Lys Pro Ser Val Phe Ser Phe Pro Ala His Met Gln Lys
 50 55 60
 His Val
 65

<210> 66
 <211> 93
 <212> PRT
 <213> Danio rerio

<400> 66
 Ser Ser Glu His Cys Cys Val Pro Leu Cys Gly Ala Ser Ser Arg Phe
 1 5 10 15
 Asn Ser Ala Val Ser Phe His Thr Phe Pro Val Ser Thr Glu Ile Arg
 20 25 30
 Glu Lys Trp Ile Lys Asn Ile Arg Arg Glu Lys Leu Asn Ile Thr Tyr
 35 40 45
 His Thr Arg Val Cys Cys Arg His Phe Thr Thr Asp Asp Leu Ile Gln
 50 55 60
 Pro Arg Asn Pro Ile Gly Arg Arg Leu Leu Arg Lys Gly Ala Val Pro
 65 70 75 80

Thr Leu Phe Lys Trp Asn Gly Tyr Ser Asp Ala Glu Ala
85 90

<210> 67
<211> 93
<212> PRT
<213> Danio rerio

<400> 67
Met Pro Asp Phe Cys Ala Ala Tyr Gly Cys Ser Asn Glu Arg Thr Lys
1 5 10 15
Lys Leu Lys Asp Lys Gly Ile Thr Phe His Arg Phe Pro Arg Asp Val
20 25 30
Lys Arg Arg Gln Ala Trp Thr Leu Ala Leu Arg Arg Asp Lys Phe Glu
35 40 45
Pro Lys Pro Arg Ser Leu Leu Cys Ser Cys His Phe Arg Pro Glu Asp
50 55 60
Phe Asp Arg Thr Gly Gln Thr Val Arg Leu Arg Asp Gly Val Ile Pro
65 70 75 80
Ser Ile Phe Asn Phe Ser Asn Pro Leu Ser Lys Leu Ser
85 90

<210> 68
<211> 97
<212> PRT
<213> Danio rerio

<400> 68
Met Pro Val Cys Ser Ala Tyr Lys Cys Lys Lys Arg Ser Asp Arg Glu
1 5 10 15
Tyr Lys Glu Ala Tyr Lys Arg Gly Glu Phe Ser Phe His Lys Phe Pro
20 25 30
Leu Glu Asp Gly Leu Arg Val Arg Glu Trp Leu Arg Arg Met Arg Trp
35 40 45
Gln Asn Trp Trp Pro Thr Gly Asn Ser Val Leu Cys Ser Asp His Phe
50 55 60
Glu Lys Asp Cys Phe Glu Gln Val Gly Ser His Lys Arg Leu Arg Lys
65 70 75 80
Ser Ala Val Pro Thr Ile Phe Asn Phe Pro Lys His Leu Gln Trp Lys
85 90 95
Val

<210> 69
<211> 90
<212> PRT
<213> Danio rerio

<400> 69
Met Val Leu Val Cys Ser Ala Tyr Asn Cys Lys Asn Thr Leu Arg Asn
1 5 10 15
Lys Ser Val Ser Phe His Leu Phe Pro Leu Lys Asp Pro Ser Leu Leu
20 25 30
Lys Lys Trp Leu Lys Asn Leu Arg Trp Lys Asp Trp Lys Pro Asn Pro

	35					40						45							
Asn	Ser	Lys	Ile	Cys	Ser	Ala	His	Phe	Glu	Glu	Lys	Cys	Phe	Ile	Leu				
50						55					60								
Glu	Gly	Lys	Lys	Thr	Arg	Leu	His	Thr	Trp	Ala	Val	Pro	Thr	Ile	Phe				
65					70					75					80				
Ser	Phe	Pro	Asn	Arg	Phe	Ser	Glu	Arg	Asn										
				85					90										

<210> 70
 <211> 107
 <212> PRT
 <213> Danio rerio

<400> 70																			
Met	Asn	Ser	Ile	Ser	Leu	Lys	Tyr	Leu	Arg	Arg	Glu	Cys	Ala	Tyr	Ser				
1				5					10					15					
Arg	Tyr	Cys	Cys	Val	Pro	Phe	Cys	Lys	Ile	Ser	Ser	Arg	Phe	Asn	Ser				
			20					25					30						
Val	Ile	Ser	Phe	His	Lys	Leu	Pro	Leu	Asp	Arg	Ala	Thr	Arg	Lys	Met				
		35				40					45								
Trp	Leu	His	Asn	Ile	Arg	Arg	Lys	Thr	Phe	Glu	Val	Ser	Pro	His	Val				
50					55					60									
Arg	Val	Cys	Ser	Arg	His	Phe	Thr	Asn	Asp	Asp	Phe	Ile	Glu	Pro	Ser				
65					70				75					80					
Tyr	Pro	Thr	Ala	Arg	Arg	Leu	Leu	Lys	Lys	Gly	Ala	Val	Pro	Thr	Leu				
				85				90						95					
Phe	Arg	Trp	Asn	Asn	Asp	Ser	Thr	Ser	Gly	Gln									
			100					105											

<210> 71
 <211> 89
 <212> PRT
 <213> Danio rerio

<400> 71																			
Leu	Arg	Leu	Arg	Gln	Ser	Ala	Ser	Ser	His	Glu	Glu	Ser	Leu	Thr	Phe				
1				5				10					15						
Tyr	Ser	Leu	Pro	Leu	Gln	Asp	Phe	Lys	Arg	Leu	Asn	Leu	Trp	Leu	Asn				
			20					25					30						
Ala	Val	Arg	Arg	Asp	Thr	Lys	Ser	Ser	Ile	Arg	Asn	Ile	Arg	Gly	Leu				
		35				40					45								
Arg	Val	Cys	Ser	Glu	His	Phe	Ala	Gln	Asp	Asp	Phe	Ser	Leu	Asn	Arg				
50					55				60										
Gly	Ser	Lys	Arg	Arg	Leu	Lys	Ser	Thr	Ala	Val	Pro	Lys	Cys	Asn	Glu				
65					70				75					80					
Ala	Leu	Pro	Gln	Ile	Arg	Arg	Ala	Gly											
				85															

<210> 72
 <211> 105
 <212> PRT
 <213> Danio rerio

<400> 72

Met	Val	Ile	Thr	Cys	Ala	Cys	Pro	Gly	Cys	Asp	Asn	Arg	Tyr	Lys	Thr
1				5					10					15	
Leu	Arg	Leu	Arg	Ser	Asp	Ser	Lys	Phe	His	Pro	Gly	Lys	Leu	Thr	Phe
			20					25					30		
His	Lys	Phe	Pro	Thr	Ser	Asp	Pro	Glu	Arg	Leu	Lys	Leu	Trp	Leu	Leu
		35					40					45			
Ala	Leu	Gly	Leu	Asp	Ile	Asn	Thr	Pro	Leu	Ser	Val	Leu	Glu	Thr	Arg
		50				55					60				
Arg	Ile	Cys	Ser	Asp	His	Phe	Ser	Pro	Phe	Asp	Phe	Lys	Asp	Thr	Lys
65					70					75					80
Gly	Ser	Ile	Val	Gln	Leu	Lys	Ser	Trp	Ala	Val	Pro	Met	Asn	Leu	Ser
			85						90					95	
Glu	Gln	Phe	Val	Asp	Asp	Pro	Ser	Lys							
			100					105							

<210> 73
 <211> 96
 <212> PRT
 <213> Danio rerio

Met	Pro	Asp	Cys	Cys	Ala	Ala	Ala	Asn	Cys	Lys	Gln	Ser	Thr	Asp	Gln
1				5					10					15	
Ser	Ser	Val	Ser	Phe	Phe	Glu	Phe	Pro	Leu	Asp	Pro	Asp	Arg	Cys	Arg
			20					25					30		
Gln	Trp	Val	Gly	Arg	Cys	Asn	Arg	Pro	Asp	Leu	Gln	Thr	Lys	Thr	Pro
		35				40						45			
Glu	Asp	Leu	His	Lys	Asn	Tyr	Lys	Val	Cys	Ser	Arg	His	Phe	Glu	Thr
	50					55					60				
Ser	Met	Ile	Cys	Gln	Gln	Ser	Ala	Val	Lys	Cys	Ile	Leu	Lys	Asp	Asp
65					70					75					80
Ala	Val	Pro	Thr	Leu	Phe	Asn	Phe	Ser	Thr	Asn	Gln	Asp	Asn	Ala	Gln
				85					90					95	

<210> 74
 <211> 91
 <212> PRT
 <213> Danio rerio

Met	Val	Lys	Cys	Thr	Val	Gln	Gly	Cys	Ile	Asn	Phe	Ser	Asp	Leu	Arg
1				5					10					15	
Pro	Glu	Glu	Gln	Pro	Asn	Arg	Pro	Arg	Lys	Arg	Phe	Phe	Arg	Phe	Pro
			20					25					30		
Lys	Asp	Lys	Val	Leu	Val	Lys	Val	Trp	Leu	Ala	Ala	Leu	Arg	Asp	Thr
		35					40					45			
Glu	Arg	Glu	Ile	Thr	Asp	Leu	His	Arg	Ile	Cys	Glu	Asp	His	Phe	Leu
	50					55					60				
Ser	His	His	Ile	Thr	Ala	Asp	Gly	Ile	Ser	Pro	Asp	Ala	Ile	Pro	Ile
65					70					75					80
Met	Pro	Pro	Leu	Asp	Gly	Pro	Val	Gly	Asn	Trp					
				85					90						

<210> 75

<211> 84
 <212> PRT
 <213> Danio rerio

<400> 75
 Met Pro Ile Ser Cys Ser Ala Val Asp Cys Ser Asn Arg Phe Val Lys
 1 5 10 15
 Gly Ser Glu Ile Arg Phe Tyr Arg Phe Pro Ile Ser Lys Pro Gln Leu
 20 25 30
 Ala Glu Gln Trp Val Arg Ser Leu Gly Arg Lys Asn Phe Val Pro Thr
 35 40 45
 Gln Asn Ser Cys Leu Cys Ser Glu His Phe Gln Pro Asp Cys Phe Arg
 50 55 60
 Asp Tyr Asn Gly Lys Leu Phe Leu Arg Glu Asp Ala Val Pro Thr Ile
 65 70 75 80
 Phe Ser Asn Ser

<210> 76
 <211> 95
 <212> PRT
 <213> Oryzias latipes

<400> 76
 Met Pro Asn Phe Cys Ala Ala Pro Asn Cys Thr Arg Lys Ser Thr Gln
 1 5 10 15
 Ser Asp Leu Ala Phe Phe Arg Phe Pro Arg Asp Pro Glu Arg Cys Arg
 20 25 30
 Ile Trp Val Glu Asn Cys Arg Arg Ala Asp Leu Glu Ala Lys Thr Ala
 35 40 45
 Asp Gln Leu Asn Lys His Tyr Arg Leu Cys Ala Lys His Phe Asp Pro
 50 55 60
 Ala Met Val Cys Lys Thr Ser Pro Tyr Arg Thr Val Leu Lys Asp Thr
 65 70 75 80
 Ala Ile Pro Thr Ile Phe Asp Leu Thr Ser His Leu Lys Asn Pro
 85 90 95

<210> 77
 <211> 90
 <212> PRT
 <213> Oryzias latipes

<400> 77
 Met Pro Thr Gly Cys Ala His Ala Asn Cys Arg Asn Val Val Gly Lys
 1 5 10 15
 Phe Arg Gly Val Thr Phe His Lys Phe Pro Arg Asp Pro Glu Lys Leu
 20 25 30
 Ser Arg Trp Thr Lys Phe Met Lys Arg His Glu Ser Trp Val Pro Lys
 35 40 45
 Tyr Tyr Asp Arg Val Cys Ser Val His Phe Ser Ser Glu His Phe Asp
 50 55 60
 Arg Thr Gly Gln Thr Val Arg Leu Arg Asp Asn Ala Glu Pro Ser Leu
 65 70 75 80
 Pro His Leu Pro Trp Arg Phe Pro Lys Ser
 85 90

<210> 78
 <211> 94
 <212> PRT
 <213> *Oryzias latipes*

<400> 78
 Met Gln Asn Arg Cys Ala Val Leu Thr Cys Pro Ser Gly Lys Thr Asp
 1 5 10 15
 Phe Gln Pro Met Phe Arg Phe Pro His Asp Gln Glu Arg Ser Arg Arg
 20 25 30
 Trp Val Glu Lys Cys Gln Gly Glu Asn Leu Ile Gly Lys Ser Pro Glu
 35 40 45
 Gln Leu Tyr Arg Tyr Tyr Arg Ile Cys Lys Arg His Phe Glu Thr Ser
 50 55 60
 Ala Phe Asp Cys Asp Ala Asp Gly Ala Val Leu Lys Lys Asp Ala Val
 65 70 75 80
 Pro Thr Ile Phe Asp Ala Ser Val Pro Pro Gln Ser Ser Gln
 85 90

<210> 79
 <211> 92
 <212> PRT
 <213> *Drosophila melanogaster*

<400> 79
 Met Pro Ala His Cys Ala Val Ile Asn Cys Ser His Lys Tyr Val His
 1 5 10 15
 Ala Gly Ser Ile Ser Phe His Arg Phe Pro Phe Lys Arg Lys Asp Leu
 20 25 30
 Leu Gln Lys Trp Lys Glu Phe Thr Gln Arg Ser Ala Gln Trp Met Pro
 35 40 45
 Ser Lys Trp Ser Ala Leu Cys Ser Arg His Phe Gly Asp Glu Asp Phe
 50 55 60
 Asn Cys Ser Asn Asn Arg Lys Thr Leu Lys Lys Asn Ala Val Pro Ser
 65 70 75 80
 Ile Arg Val Ser Glu Asp Asp Ser Met Ser Gly His
 85 90

<210> 80
 <211> 90
 <212> PRT
 <213> *Drosophila melanogaster*

<400> 80
 Met Pro Thr Ile Arg Arg Cys Cys Ile Ile Gly Cys Leu Ser Asn Ser
 1 5 10 15
 Arg Gln His Pro Ser Met Gln Phe Phe Ala Phe Pro Arg Pro Glu Asn
 20 25 30
 Pro Phe His Lys Leu Trp Lys Glu Ala Cys His Ala Ser Leu Arg Arg
 35 40 45
 Ile Val Pro Phe Lys Lys Pro Val Val Cys Ala Leu His Phe Asp Pro
 50 55 60
 Ser Val Leu Gly Gly Arg Arg Leu Gln Ser Asn Ala Leu Pro Thr Leu

65		70		75		80
Arg	Leu	Glu	Val	Pro	Ser	Asn
				85		90

<210> 81
 <211> 104
 <212> PRT
 <213> *Drosophila melanogaster*

<400> 81
 Met Arg Cys Ala Val Pro Asn Cys Arg Asn Phe Ser Asp Cys Arg Ser
 1 5 10 15
 Lys Arg Asn Ala Gln Gln Gln Arg Leu Gly Phe Phe Arg Phe Pro
 20 25 30
 Lys Cys Pro Asp Thr Phe Lys Ala Trp Leu Ala Phe Cys Gly Tyr Thr
 35 40 45
 Glu Glu Ser Leu Lys Leu Lys Asn Pro Cys Ile Cys Ile Glu His Phe
 50 55 60
 Lys Asp Glu Asp Ile Glu Gly Ser Leu Lys Phe Glu Met Gly Leu Ala
 65 70 75 80
 Lys Lys Arg Thr Leu Arg Pro Gly Ala Val Pro Cys Val Asn Lys Ser
 85 90 95
 Gln Glu Ser Gly Ser Asp Arg Ala
 100

<210> 82
 <211> 96
 <212> PRT
 <213> *Drosophila melanogaster*

<400> 82
 Met Gly Gly Thr Lys Cys Cys Phe Arg Asp Cys Pro Val Gly Ser Ser
 1 5 10 15
 Arg Asn Pro Asn Met His Phe Phe Lys Phe Pro Val Lys Asp Pro Lys
 20 25 30
 Arg Leu Lys Asp Trp Val Arg Asn Cys Ser Asn Pro Asp Val Ser Asn
 35 40 45
 Ala Pro Pro Ser Lys Leu Ala Ala Lys Thr Val Cys Ala Arg His Phe
 50 55 60
 Arg Ala Glu Cys Phe Met Asn Tyr Lys Met Asp Arg Leu Ile Pro Met
 65 70 75 80
 Gln Thr Pro Thr Leu Phe Arg Ile Asn Arg Asp Leu Ala Leu Asp Tyr
 85 90 95

<210> 83
 <211> 96
 <212> PRT
 <213> *Drosophila melanogaster*

<400> 83
 Met Ala Thr Arg Ser Cys Ala Tyr Lys Asp Cys Glu Tyr Tyr Tyr Val
 1 5 10 15
 Gly His Glu Asn Ala Leu Thr Lys Gly Arg Thr Leu Phe Ala Phe Pro
 20 25 30

Lys	Gln	Pro	Gln	Arg	Ala	Arg	Ile	Trp	His	Glu	Asn	Gly	Gln	Val	His
		35					40					45			
Pro	Lys	Ile	Pro	His	Ser	Gln	Leu	Phe	Met	Cys	Ser	Leu	His	Phe	Asp
	50					55				60					
Arg	Lys	Phe	Ile	Ser	Ser	Ser	Lys	Asn	Arg	Thr	Leu	Leu	Val	Gly	Glu
65					70					75					80
Ala	Val	Pro	Phe	Pro	Tyr	Glu	Glu	Ser	Ser	Ser	Lys	Pro	Glu	Glu	Glu
				85				90					95		

<210> 84

<211> 87

<212> PRT

<213> *Drosophila melanogaster*

<400> 84

Met	Lys	Tyr	Cys	Lys	Phe	Cys	Cys	Lys	Ala	Val	Thr	Gly	Val	Lys	Leu
1				5					10					15	
Ile	His	Val	Pro	Lys	Cys	Ala	Ile	Lys	Arg	Lys	Leu	Trp	Glu	Gln	Ser
			20					25					30		
Leu	Gly	Cys	Ser	Leu	Gly	Glu	Asn	Ser	Gln	Ile	Cys	Asp	Thr	His	Phe
		35					40					45			
Asn	Asp	Ser	Gln	Trp	Lys	Ala	Ala	Pro	Ala	Lys	Gly	Gln	Thr	Phe	Lys
	50					55					60				
Arg	Arg	Arg	Leu	Asn	Ala	Asp	Ala	Val	Pro	Ser	Lys	Val	Ile	Glu	Pro
65					70				75						80
Glu	Pro	Glu	Lys	Ile	Lys	Glu									
				85											

<210> 85

<211> 92

<212> PRT

<213> *Anopheles gambiae*

<400> 85

Met	Pro	Ala	Ser	Cys	Val	Ile	Pro	Asp	Cys	Asp	Leu	Lys	Tyr	Thr	His
1				5					10					15	
Gly	Asp	Asp	Val	Ser	Phe	His	Lys	Phe	Pro	Leu	Lys	Ser	Pro	Glu	Leu
			20					25					30		
Leu	Lys	Gln	Trp	Ile	Gln	Phe	Thr	Gly	Arg	Asp	Glu	Gly	Trp	His	Pro
		35					40					45			
Thr	Lys	Trp	Ser	Ala	Leu	Cys	Ser	Arg	His	Phe	Val	Ala	Ser	Asp	Phe
	50					55					60				
Lys	Gly	Cys	Ala	Ala	Arg	Lys	Ile	Leu	Leu	Pro	Thr	Ala	Val	Pro	Ser
65					70				75						80
Val	Arg	Asn	Ala	Val	Ala	Ala	Lys	Ala	Gln	Pro	Asn				
				85					90						

<210> 86

<211> 108

<212> PRT

<213> *Anopheles gambiae*

<400> 86

Met Ser Ala Val Arg Ser Cys Ala Leu Cys Gln Asn Arg Ser Asn Ile

1				5					10					15		
Thr	Asp	Gln	Gln	Thr	Asp	Asp	Ala	Leu	Glu	Arg	Ile	Thr	Tyr	His	Lys	
			20					25					30			
Phe	Pro	Thr	Asn	Pro	Val	Arg	Arg	Asp	Arg	Trp	Ile	Glu	Phe	Cys	Asp	
		35					40					45				
Leu	Pro	Lys	Glu	Ser	Phe	Pro	Lys	Ser	Ala	Tyr	Lys	Phe	Leu	Cys	Ser	
	50					55					60					
Ser	His	Phe	Thr	Pro	Glu	Cys	Phe	Glu	Arg	Asp	Leu	Arg	Gly	Glu	Leu	
65					70					75					80	
Leu	Tyr	Gly	Thr	Lys	Arg	Met	Thr	Leu	Gln	Lys	Asp	Ala	Met	Pro	Thr	
				85				90					95			
Ile	Arg	Ser	Val	Ser	Gln	Gln	Leu	Lys	Arg	Thr	Thr					
			100					105								

<210> 87

<211> 100

<212> PRT

<213> Anopheles gambiae

<400> 87

Met	Trp	Asp	Cys	Ala	Val	Ile	Gly	Cys	Pro	Asn	Ser	Arg	Phe	Asn	Ala	
1				5				10					15			
Gln	Lys	Thr	Arg	Pro	Arg	Ile	Ser	Phe	His	Val	Phe	Pro	His	Pro	Val	
		20					25					30				
Arg	Glu	Ser	Asn	Arg	Phe	Arg	Arg	Trp	Leu	Ala	Leu	Ile	Asn	Asn	Pro	
	35					40					45					
Arg	Leu	Phe	Arg	Leu	Asp	Pro	Leu	Asn	Val	Phe	Lys	Ser	Val	Arg	Val	
	50				55					60						
Cys	Arg	Arg	His	Phe	Gly	Pro	Asp	Cys	Phe	Asn	Gly	Val	Cys	Arg	Asn	
65				70				75							80	
Leu	Leu	Pro	Thr	Ala	Ile	Pro	Thr	Leu	Asn	Leu	Pro	Glu	Val	Arg	Pro	
				85				90					95			
Val	Ala	Leu	Val													
			100													

<210> 88

<211> 95

<212> PRT

<213> Anopheles gambiae

<400> 88

Met	Gly	Ile	Arg	Lys	Cys	Ile	Val	Pro	Glu	Cys	Pro	Ser	Ser	Ser	Ala	
1				5				10					15			
Arg	Pro	Glu	Asp	Arg	Gly	Val	Thr	Tyr	His	Lys	Ile	Pro	Tyr	Leu	Asp	
		20					25					30				
Glu	Met	Lys	Arg	Leu	Trp	Ile	Val	Ala	Cys	His	Leu	Pro	Asp	Asp	Tyr	
	35					40					45					
Phe	Ala	Thr	Lys	Ala	Ser	Asn	Val	Cys	Ser	Arg	His	Phe	Arg	Arg	Ala	
	50				55					60						
Asp	Phe	Gln	Glu	Phe	Lys	Gly	Lys	Lys	Tyr	Val	Leu	Lys	Leu	Gly	Val	
65				70				75							80	
Val	Pro	Thr	Val	Phe	Pro	Trp	Thr	Val	Thr	Lys	Pro	Pro	Gly	Glu		
				85				90					95			

<210> 89
 <211> 107
 <212> PRT
 <213> Anopheles gambiae

<400> 89
 Met Gly Lys Ile Ser Gly Ser His Cys Leu Val Leu Gly Cys Arg Asn
 1 5 10 15
 Arg Gln Leu Leu Asn Gln Ala Asn Ile Arg Ser Tyr Phe Arg Phe Pro
 20 25 30
 Arg Asp Ala Asp Leu Cys Lys Lys Trp Val Asp Phe Cys Asn Arg Pro
 35 40 45
 Glu Leu Tyr Lys Lys Tyr Asp Glu Asn Gly Pro Glu Tyr Leu Tyr Lys
 50 55 60
 Ser Ser Arg Ile Cys Ser Asp His Phe Gln Pro Ala Asp Phe Asn Asn
 65 70 75 80
 Pro Asn Leu Phe Ser Gln Gly Leu Lys Lys Gly Ser Val Pro Ser Val
 85 90 95
 Asn Pro Ala Asn Leu Glu Ala Ala Lys Pro His
 100 105

<210> 90
 <211> 104
 <212> PRT
 <213> Anopheles gambiae

<400> 90
 Met Thr Asn Cys Ser Cys Ala Val Ala Asp Cys Asn Asn Asn Arg Arg
 1 5 10 15
 Asn Val Arg Lys Arg Met Leu Asp Ile Gly Phe His Thr Phe Pro Ser
 20 25 30
 Asp Pro Val Gln Arg Gln Arg Trp Val Lys Phe Cys Gln Arg Glu Pro
 35 40 45
 Ser Trp Gln Pro Lys Ser Cys Asp Ser Met Cys Ser Val His Phe Lys
 50 55 60
 Asp Thr Asp Tyr Gln Met Ser His Ser Pro Leu Ile Arg Leu Ala Thr
 65 70 75 80
 Asn Leu Arg Arg Leu Lys Pro Asp Val Ile Pro Thr Ile Arg Lys Gly
 85 90 95
 Arg Ala Ile Pro Val Ala Ala Arg
 100

<210> 91
 <211> 95
 <212> PRT
 <213> Anopheles gambiae

<400> 91
 Met Gly Gly Cys Arg Cys Thr Phe Arg Asp Cys Glu Asn Gly Thr Ala
 1 5 10 15
 Ser Arg Lys Glu Leu His Tyr Phe Arg Tyr Pro Val Arg Asp Gln Glu
 20 25 30
 Arg Leu Ile Glu Trp Ala Lys Asn Ala Asp Arg Leu Glu Phe Val Asp
 35 40 45
 Leu Pro Val Asp Lys Val Ser Asn Lys Val Val Cys Gln Glu His Phe

50		55		60
Glu Arg Lys Met Phe Met Asn Asp Leu Arg Asp Arg Leu Thr Lys Met				
65	70	75	80	
Ala Ile Pro Arg Leu Met Val Met Pro Asp Glu Thr Ile Val Asn				
85	90	95		

<210> 92
 <211> 97
 <212> PRT
 <213> Anopheles gambiae

<400> 92

Met Lys Cys Phe Val Ser Gly Cys Asp Thr Asp Asp Asn Val Val Ser				
1	5	10	15	
Tyr Thr Ser Val Phe Tyr Val Asn Cys Pro Thr Asp Pro Thr Ile Gln				
20	25	30		
Gln Gln Trp Phe Thr Leu Leu Glu Val Thr Asp Pro Asp Ala Met Arg				
35	40	45		
Ala Leu Val Asp Gly Arg Ser Lys Val Cys Ser Cys His Phe Thr Glu				
50	55	60		
Asp Cys Phe Gly His His Pro Val Tyr Gly Tyr Arg Tyr Leu Leu Ala				
65	70	75	80	
Thr Ala Leu Pro Thr Val Phe Pro Pro Arg Lys Glu Ile Glu Gln Pro				
85	90	95		

Lys

<210> 93
 <211> 92
 <212> PRT
 <213> Bombyx mori

<400> 93

Met Pro Arg Cys Ser Val Ile Val Cys Lys Asn Asn Ser Cys Ile Val				
1	5	10	15	
Asn Tyr Lys Lys Asp Ser Ile Ser Phe His Thr Tyr Pro Lys Asp Pro				
20	25	30		
Lys Ile Lys Glu Met Trp Ile Asn Ala Thr Gly Arg Gly Pro Ser Trp				
35	40	45		
Phe Pro Thr Lys Asn His Thr Ile Cys Ser Ser His Phe Glu Pro Lys				
50	55	60		
Cys Phe Gln Pro Leu Lys Lys Val Arg Arg Leu Phe Glu Trp Ser Val				
65	70	75	80	
Pro Thr Leu Lys Leu Arg Met Val Leu Met Asn Tyr				
85	90			

<210> 94
 <211> 96
 <212> PRT
 <213> Bombyx mori

<400> 94

Met Pro Asp Thr His Arg Thr Cys Glu Val Cys Gly Ile Lys Glu Arg				
1	5	10	15	

His Leu Thr Glu Lys Arg Phe Phe Ala Arg Phe Pro Leu Asp Val Asn
 20 25 30
 Arg Cys Lys Gln Trp Val Lys Met Val Gly Lys Glu Asp Leu Ala Tyr
 35 40 45
 Leu Gln Val His Met Leu His Asp Leu Lys His Val Cys Glu Ala His
 50 55 60
 Phe Ser Arg Arg Asp Phe Thr Lys Ser Lys Lys Arg Leu Lys Lys Arg
 65 70 75 80
 Ala Val Pro Lys Leu Asn Leu Thr Leu Pro Pro Leu Arg Asp Glu Ile
 85 90 95

<210> 95

<211> 89

<212> PRT

<213> Caenorhabditis elegans

<400> 95

Met Pro Thr Thr Cys Gly Phe Pro Asn Cys Lys Phe Arg Ser Arg Tyr
 1 5 10 15
 Arg Gly Leu Glu Asp Asn Arg His Phe Tyr Arg Ile Pro Lys Arg Pro
 20 25 30
 Leu Ile Leu Arg Gln Arg Trp Leu Thr Ala Ile Gly Arg Thr Glu Glu
 35 40 45
 Thr Val Val Ser Gln Leu Arg Ile Cys Ser Ala His Phe Glu Gly Gly
 50 55 60
 Glu Lys Lys Glu Gly Asp Ile Pro Val Pro Asp Pro Thr Val Asp Lys
 65 70 75 80
 Gln Ile Lys Ile Glu Leu Pro Pro Lys
 85

<210> 96

<211> 100

<212> PRT

<213> Caenorhabditis elegans

<400> 96

Met Tyr Gly Val Gln Ser Glu Cys Val Leu Cys Ala His Ala Asn Asp
 1 5 10 15
 Cys Thr Ala Met Ile Pro Phe Pro Gly Pro Asp Asp Glu Lys Leu Arg
 20 25 30
 Thr Lys Trp Ile Asn Ser Met Cys Arg Glu Pro Trp Ile Tyr Arg Tyr
 35 40 45
 Leu Ser Thr Arg Leu Glu Lys Pro Gly Arg His Tyr Leu Cys Ala Ser
 50 55 60
 His Phe Asn Arg Asn Ser Leu Arg Tyr His Ala Gly Leu Gly Leu Trp
 65 70 75 80
 Arg Arg Ala Ala Ala Cys Pro Val Leu Ala Cys Thr Thr Asp Glu Glu
 85 90 95
 Arg Gln Glu Val
 100

<210> 97

<211> 86

<212> PRT

<213> Caenorhabditis elegans

<400> 97

```
Met Glu His Pro Leu Gln Cys Cys Tyr Cys Leu Glu Val Tyr Glu Lys
 1          5          10          15
Arg Tyr Met Thr Gln Val Pro Lys Thr Glu Gln Arg Ile Ala Arg Trp
          20          25          30
Val Ala Ile Leu Gly Glu Gln Phe Arg Ile Arg Leu Arg Met Lys Pro
          35          40          45
Ala Asn Tyr Met Cys Arg Lys His Phe Pro Gln Ala Asp Phe Ser Ser
          50          55          60
Arg Gly Arg Leu Leu Lys Thr Ala Val Pro Asn Val Val Ser Gln Glu
65          70          75          80
Lys Val Leu Ala Phe Lys
          85
```

<210> 98

<211> 97

<212> PRT

<213> Caenorhabditis elegans

<400> 98

```
Asn Leu Thr His Lys Pro Cys Thr Val Cys Asn Arg Val Met Lys Ser
 1          5          10          15
Gly Glu Met His Leu Asn Phe Pro Ala Asp Leu Asp Arg Arg Arg Ile
          20          25          30
Trp Ala Asn Leu Leu Gly Phe Lys Tyr Lys Asp Ile Leu Arg Ser Lys
          35          40          45
Met Gly Pro Val Ser Phe Ser Ile Ala Ala Gly Pro Ile Cys Thr Glu
          50          55          60
His Phe Ala Glu Glu Cys Phe Arg Asn His Asn Phe Asn Lys Ser Ala
65          70          75          80
Ile Glu Ala Phe Gly Val Pro Val Ala Ile Ser Pro Asp Val Lys Thr
          85          90          95
Thr
```

<210> 99

<211> 210

<212> PRT

<213> Mus musculus

<400> 99

```
Met Val Gln Ser Cys Ser Ala Tyr Gly Cys Lys Asn Arg Tyr Asp Lys
 1          5          10          15
Asp Lys Pro Val Ser Phe His Lys Phe Pro Leu Thr Arg Pro Ser Leu
          20          25          30
Cys Lys Gln Trp Glu Ala Ala Val Lys Arg Lys Asn Phe Lys Pro Thr
          35          40          45
Lys Tyr Ser Ser Ile Cys Ser Glu His Phe Thr Pro Asp Cys Phe Lys
          50          55          60
Arg Glu Cys Asn Asn Lys Leu Leu Lys Glu Asn Ala Val Pro Thr Ile
65          70          75          80
Phe Leu Tyr Ile Glu Pro His Glu Lys Lys Glu Asp Leu Glu Ser Gln
          85          90          95
```

Glu Gln Leu Pro Ser Pro Ser Pro Pro Ala Ser Gln Val Asp Ala Ala
 100 105 110
 Ile Gly Leu Leu Met Pro Pro Leu Gln Thr Pro Asp Asn Leu Ser Val
 115 120 125
 Phe Cys Asp His Asn Tyr Thr Val Glu Asp Thr Met His Gln Arg Lys
 130 135 140
 Arg Ile Leu Gln Leu Glu Gln Gln Val Glu Lys Leu Arg Lys Lys Leu
 145 150 155 160
 Lys Thr Ala Gln Gln Arg Cys Arg Arg Gln Glu Arg Gln Leu Glu Lys
 165 170 175
 Leu Lys Glu Val Val His Phe Gln Arg Glu Lys Asp Asp Ala Ser Glu
 180 185 190
 Arg Gly Tyr Val Ile Leu Pro Asn Asp Tyr Phe Glu Ile Val Glu Val
 195 200 205
 Pro Ala
 210

<210> 100
 <211> 217
 <212> PRT
 <213> Mus musculus

<400> 100
 Met Pro Thr Asn Cys Ala Ala Ala Gly Cys Ala Ala Thr Tyr Asn Lys
 1 5 10 15
 His Ile Asn Ile Ser Phe His Arg Phe Pro Leu Asp Pro Lys Arg Arg
 20 25 30
 Lys Glu Trp Val Arg Leu Val Arg Arg Lys Asn Phe Val Pro Gly Lys
 35 40 45
 His Thr Phe Leu Cys Ser Lys His Phe Glu Ala Ser Cys Phe Asp Leu
 50 55 60
 Thr Gly Gln Thr Arg Arg Leu Lys Met Asp Ala Val Pro Thr Ile Phe
 65 70 75 80
 Asp Phe Cys Thr His Ile Lys Ser Leu Lys Leu Lys Ser Arg Asn Leu
 85 90 95
 Leu Lys Thr Asn Asn Ser Phe Pro Pro Thr Gly Pro Cys Asn Leu Lys
 100 105 110
 Leu Asn Gly Ser Gln Gln Val Leu Leu Glu His Ser Tyr Ala Phe Arg
 115 120 125
 Asn Pro Met Glu Ala Lys Lys Arg Ile Ile Lys Leu Glu Lys Glu Ile
 130 135 140
 Ala Ser Leu Arg Lys Lys Met Lys Thr Cys Leu Gln Arg Glu Arg Arg
 145 150 155 160
 Ala Thr Arg Arg Trp Ile Lys Ala Thr Cys Phe Val Lys Ser Leu Glu
 165 170 175
 Ala Ser Asn Met Leu Pro Lys Gly Ile Ser Glu Gln Ile Leu Pro Thr
 180 185 190
 Ala Leu Ser Asn Leu Pro Leu Glu Asp Leu Lys Ser Leu Glu Gln Asp
 195 200 205
 Gln Gln Asp Lys Thr Val Pro Ile Leu
 210 215

<210> 101
 <211> 218
 <212> PRT

<213> Mus musculus

<400> 101

```
Met Pro Lys Ser Cys Ala Ala Arg Gln Cys Cys Asn Arg Tyr Ser Ser
 1           5           10          15
Arg Arg Lys Gln Leu Thr Phe His Arg Phe Pro Phe Ser Arg Pro Glu
          20          25          30
Leu Leu Arg Glu Trp Val Leu Asn Ile Gly Arg Ala Asp Phe Lys Pro
          35          40          45
Lys Gln His Thr Val Ile Cys Ser Glu His Phe Arg Pro Glu Cys Phe
          50          55          60
Ser Ala Phe Gly Asn Arg Lys Asn Leu Lys His Asn Ala Val Pro Thr
65          70          75          80
Val Phe Ala Phe Gln Asn Pro Thr Glu Val Cys Pro Glu Val Gly Ala
          85          90          95
Gly Gly Asp Ser Ser Gly Arg Asn Met Asp Thr Thr Leu Glu Glu Leu
          100          105          110
Gln Pro Pro Thr Pro Glu Gly Pro Val Gln Gln Val Leu Pro Asp Arg
          115          120          125
Glu Ala Met Glu Ala Thr Glu Ala Ala Gly Leu Pro Ala Ser Pro Leu
          130          135          140
Gly Leu Lys Arg Pro Leu Pro Gly Gln Pro Ser Asp His Ser Tyr Ala
145          150          155          160
Leu Ser Asp Leu Asp Thr Leu Lys Lys Lys Leu Phe Leu Thr Leu Lys
          165          170          175
Glu Asn Lys Arg Leu Arg Lys Arg Leu Lys Ala Gln Arg Leu Leu Leu
          180          185          190
Arg Arg Thr Cys Gly Arg Leu Arg Ala Tyr Arg Glu Gly Gln Pro Gly
          195          200          205
Pro Arg Ala Arg Arg Pro Ala Gln Gly Ser
          210          215
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<210> 102

<211> 205

<212> PRT

<213> Mus musculus

<400> 102

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Met Val Ile Cys Cys Ala Ala Val Asn Cys Ser Asn Arg Gln Gly Lys
 1           5           10          15
Gly Glu Lys Arg Ala Val Ser Phe His Arg Phe Pro Leu Lys Asp Ser
          20          25          30
Lys Arg Leu Ile Gln Trp Leu Lys Ala Val Gln Arg Asp Asn Trp Thr
          35          40          45
Pro Thr Lys Tyr Ser Phe Leu Cys Ser Glu His Phe Thr Lys Asp Ser
          50          55          60
Phe Ser Lys Arg Leu Glu Asp Gln His Arg Leu Leu Lys Pro Thr Ala
65          70          75          80
Val Pro Ser Ile Phe His Leu Ser Glu Lys Lys Arg Gly Ala Gly Gly
          85          90          95
His Gly His Ala Arg Arg Lys Thr Thr Ala Ala Met Arg Gly His Thr
          100          105          110
Ser Ala Glu Thr Gly Lys Gly Thr Ile Gly Ser Ser Leu Ser Ser Ser
          115          120          125
Asp Asn Leu Met Ala Lys Pro Glu Ser Arg Lys Leu Lys Arg Ala Ser
          130          135          140
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Leu	Gln	Asp	Asp	Ala	Ala	Pro	Lys	Val	Thr	Pro	Gly	Ala	Val	Ser	Gln
145					150					155					160
Glu	Gln	Gly	Gln	Ser	Leu	Glu	Lys	Thr	Pro	Gly	Asp	Asp	Pro	Ala	Ala
				165					170					175	
Pro	Leu	Ala	Arg	Gly	Gln	Glu	Glu	Ala	Gln	Ala	Ser	Ala	Thr	Glu	Ala
			180					185					190		
Asp	His	Gln	Lys	Ala	Ser	Ser	Ser	Thr	Asp	Ala	Glu	Gly			
		195					200					205			

<210> 103
 <211> 186
 <212> PRT
 <213> Mus musculus

Ile	Leu	Gln	Ala	Phe	Gly	Ser	Leu	Lys	Lys	Gly	Asp	Val	Leu	Cys	Ser
1				5					10					15	
Arg	His	Phe	Lys	Lys	Thr	Asp	Phe	Asp	Arg	Ser	Thr	Leu	Asn	Thr	Lys
			20				25						30		
Leu	Lys	Ala	Gly	Ala	Ile	Pro	Ser	Ile	Phe	Glu	Cys	Pro	Tyr	His	Leu
		35				40						45			
Gln	Glu	Lys	Arg	Glu	Lys	Leu	His	Cys	Arg	Lys	Asn	Phe	Leu	Leu	Lys
	50					55					60				
Thr	Leu	Pro	Ile	Thr	His	His	Gly	Arg	Gln	Leu	Val	Gly	Ala	Ser	Cys
65					70					75					80
Ile	Glu	Glu	Phe	Glu	Pro	Gln	Phe	Ile	Phe	Glu	His	Ser	Tyr	Ser	Val
			85					90					95		
Met	Asp	Ser	Pro	Lys	Lys	Leu	Lys	His	Lys	Leu	Asp	Arg	Val	Ile	Ile
			100				105						110		
Glu	Leu	Glu	Asn	Thr	Lys	Glu	Ser	Leu	Arg	Asn	Val	Leu	Ala	Arg	Glu
		115					120					125			
Lys	His	Phe	Gln	Lys	Ser	Leu	Arg	Lys	Thr	Ile	Met	Glu	Leu	Lys	Asp
		130				135					140				
Glu	Ser	Leu	Ile	Ser	Gln	Glu	Thr	Ala	Asn	Ser	Leu	Gly	Ala	Phe	Cys
145					150					155					160
Trp	Glu	Cys	Tyr	His	Glu	Ser	Thr	Ala	Gly	Gly	Cys	Ser	Cys	Glu	Val
				165					170					175	
Ile	Ser	Tyr	Met	Leu	His	Leu	Gln	Leu	Thr						
			180					185							

<210> 104
 <211> 194
 <212> PRT
 <213> Mus musculus

Met	Pro	Arg	His	Cys	Ser	Ala	Ala	Gly	Cys	Cys	Thr	Arg	Asp	Thr	Arg
1				5					10					15	
Glu	Thr	Arg	Asn	Arg	Gly	Ile	Ser	Phe	His	Arg	Leu	Pro	Lys	Lys	Asp
			20					25					30		
Asn	Pro	Arg	Arg	Gly	Leu	Trp	Leu	Ala	Asn	Cys	Gln	Arg	Leu	Asp	Pro
		35				40					45				
Ser	Gly	Gln	Gly	Leu	Trp	Asp	Pro	Thr	Ser	Glu	Tyr	Ile	Tyr	Phe	Cys
	50					55					60				
Ser	Lys	His	Phe	Glu	Glu	Asn	Cys	Phe	Glu	Leu	Val	Gly	Ile	Ser	Gly

65					70					75				80
Tyr	His	Arg	Leu	Lys	Glu	Gly	Ala	Val	Pro	Thr	Ile	Phe	Glu	Ser
				85					90					95
Ser	Lys	Leu	Arg	Arg	Thr	Ala	Lys	Thr	Lys	Gly	His	Gly	Tyr	Pro
			100					105					110	
Gly	Leu	Pro	Asp	Val	Ser	Arg	Leu	Arg	Arg	Cys	Arg	Lys	Arg	Cys
		115					120					125		
Glu	Arg	Gln	Gly	Pro	Thr	Thr	Pro	Phe	Ser	Pro	Pro	Pro	Arg	Ala
	130					135					140			
Ile	Ile	Cys	Phe	Pro	Val	Glu	Glu	Ala	Ser	Ala	Pro	Ala	Thr	Leu
145				150						155				160
Ala	Ser	Pro	Ala	Val	Arg	Leu	Asp	Pro	Gly	Leu	Asn	Ser	Pro	Phe
			165					170						175
Asp	Leu	Leu	Gly	Pro	Leu	Gly	Ala	Gln	Ala	Asp	Glu	Ala	Gly	Cys
		180					185						190	
Thr	Gln													

<210> 105
 <211> 305
 <212> PRT
 <213> Mus musculus

<400> 105

Met	Pro	Gly	Phe	Thr	Cys	Cys	Val	Pro	Gly	Cys	Tyr	Asn	Asn	Ser	His
1				5					10					15	
Arg	Asp	Lys	Ala	Leu	His	Phe	Tyr	Thr	Phe	Pro	Lys	Asp	Ala	Glu	Leu
			20					25					30		
Arg	Arg	Leu	Trp	Leu	Lys	Asn	Val	Ser	Arg	Ala	Gly	Val	Ser	Gly	Cys
		35				40					45				
Phe	Ser	Thr	Phe	Gln	Pro	Thr	Thr	Gly	His	Arg	Leu	Cys	Ser	Val	His
	50					55				60					
Phe	Gln	Gly	Gly	Arg	Lys	Thr	Tyr	Thr	Val	Arg	Val	Pro	Thr	Ile	Phe
65				70					75					80	
Pro	Leu	Arg	Gly	Val	Asn	Glu	Arg	Lys	Val	Ala	Arg	Arg	Pro	Ala	Gly
			85					90					95		
Ala	Ala	Ala	Ala	Arg	Arg	Arg	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Gln
			100				105						110		
Gln	Gln	Gln	Gln	Gln	Gln	Leu	Gln	Gln	Gln	Gln	Pro	Ser	Pro	Ser	Ser
		115				120					125				
Ser	Thr	Ala	Gln	Thr	Thr	Gln	Leu	Gln	Pro	Asn	Leu	Val	Ser	Ala	Ser
	130					135				140					
Ala	Ala	Val	Leu	Leu	Thr	Leu	Gln	Ala	Ala	Val	Asp	Ser	Asn	Gln	Ala
145				150					155					160	
Pro	Gly	Ser	Val	Val	Pro	Val	Ser	Thr	Thr	Pro	Ser	Gly	Asp	Asp	Val
			165					170					175		
Lys	Pro	Ile	Asp	Leu	Thr	Val	Gln	Val	Glu	Phe	Ala	Ala	Ala	Glu	Gly
		180				185						190			
Ala	Ala	Ala	Ala	Ala	Ala	Ala	Ser	Glu	Leu	Glu	Ala	Ala	Thr	Ala	Gly
		195				200					205				
Leu	Glu	Ala	Ala	Glu	Cys	Thr	Leu	Gly	Pro	Gln	Leu	Val	Val	Val	Gly
	210					215				220					
Glu	Glu	Gly	Phe	Pro	Asp	Thr	Gly	Ser	Asp	His	Ser	Tyr	Ser	Leu	Ser
225				230					235					240	
Ser	Gly	Thr	Thr	Glu	Glu	Glu	Leu	Leu	Arg	Lys	Leu	Asn	Glu	Gln	Arg
			245					250					255		

Asp Ile Leu Ala Leu Met Glu Val Lys Met Lys Glu Met Lys Gly Ser
 260 265 270
 Ile Arg His Leu Arg Leu Thr Glu Ala Lys Leu Arg Glu Glu Leu Arg
 275 280 285
 Glu Lys Asp Arg Leu Leu Ala Met Ala Val Ile Arg Lys Lys His Gly
 290 295 300
 Met
 305

<210> 106
 <211> 305
 <212> PRT
 <213> Mus musculus

<400> 106
 Met Pro Gly Phe Thr Cys Cys Val Pro Gly Cys Tyr Asn Asn Ser His
 1 5 10 15
 Arg Asp Lys Ala Leu His Phe Tyr Thr Phe Pro Lys Asp Ala Glu Leu
 20 25 30
 Arg Arg Leu Trp Leu Lys Asn Val Ser Arg Ala Gly Val Ser Gly Cys
 35 40 45
 Phe Ser Thr Phe Gln Pro Thr Thr Gly His Arg Leu Cys Ser Val His
 50 55 60
 Phe Gln Gly Gly Arg Lys Thr Tyr Thr Val Arg Val Pro Thr Ile Phe
 65 70 75 80
 Pro Leu Arg Gly Val Asn Glu Arg Lys Val Ala Arg Arg Pro Ala Gly
 85 90 95
 Ala Ala Ala Ala Arg Arg Arg Gln Gln Gln Gln Gln Gln Gln Gln
 100 105 110
 Gln Gln Gln Gln Gln Gln Leu Gln Gln Gln Gln Pro Ser Pro Ser Ser
 115 120 125
 Ser Thr Ala Gln Thr Thr Gln Leu Gln Pro Asn Leu Val Ser Ala Ser
 130 135 140
 Ala Ala Val Leu Leu Thr Leu Gln Ala Ala Val Asp Ser Asn Gln Ala
 145 150 155 160
 Pro Gly Ser Val Val Pro Val Ser Thr Thr Pro Ser Gly Asp Asp Val
 165 170 175
 Lys Pro Ile Asp Leu Thr Val Gln Val Glu Phe Ala Ala Ala Glu Gly
 180 185 190
 Ala Ala Ala Ala Ala Ala Ala Ser Glu Leu Glu Ala Ala Thr Ala Gly
 195 200 205
 Leu Glu Ala Ala Glu Cys Thr Leu Gly Pro Gln Leu Val Val Val Gly
 210 215 220
 Glu Glu Gly Phe Pro Asp Thr Gly Ser Asp His Ser Tyr Ser Leu Ser
 225 230 235 240
 Ser Gly Thr Thr Glu Glu Glu Leu Leu Arg Lys Leu Asn Glu Gln Arg
 245 250 255
 Asp Ile Leu Ala Leu Met Glu Val Lys Met Lys Glu Met Lys Gly Ser
 260 265 270
 Ile Arg His Leu Arg Leu Thr Glu Ala Lys Leu Arg Glu Glu Leu Arg
 275 280 285
 Glu Lys Asp Arg Leu Leu Ala Met Ala Val Ile Arg Lys Lys His Gly
 290 295 300
 Met
 305

<210> 107
 <211> 652
 <212> PRT
 <213> Mus musculus

<400> 107

Met	Pro	Asn	Phe	Cys	Ala	Ala	Pro	Asn	Cys	Thr	Arg	Lys	Ser	Thr	Gln
1				5					10					15	
Ser	Asp	Leu	Ala	Phe	Phe	Arg	Phe	Pro	Arg	Asp	Pro	Ala	Arg	Cys	Gln
		20						25				30			
Lys	Trp	Val	Glu	Asn	Cys	Arg	Arg	Ala	Asp	Leu	Glu	Asp	Lys	Thr	Pro
	35					40					45				
Asp	Gln	Leu	Asn	Lys	His	Tyr	Arg	Leu	Cys	Ala	Lys	His	Phe	Glu	Thr
50					55					60					
Ser	Met	Ile	Cys	Arg	Thr	Ser	Pro	Tyr	Arg	Thr	Val	Leu	Arg	Asp	Asn
65				70					75						80
Ala	Ile	Pro	Thr	Ile	Phe	Asp	Leu	Thr	Ser	His	Leu	Asn	Asn	Pro	His
			85					90					95		
Ser	Arg	His	Arg	Lys	Arg	Ile	Lys	Glu	Leu	Ser	Glu	Asp	Glu	Ile	Arg
			100				105						110		
Thr	Leu	Lys	Gln	Lys	Lys	Ile	Glu	Glu	Thr	Ser	Glu	Gln	Glu	Gln	Glu
	115					120					125				
Thr	Asn	Thr	Asn	Ala	Gln	Asn	Pro	Ser	Ala	Glu	Ala	Val	Asn	Gln	Gln
130					135					140					
Asp	Ala	Asn	Val	Leu	Pro	Leu	Thr	Leu	Glu	Glu	Lys	Glu	Asn	Lys	Glu
145				150					155						160
Tyr	Leu	Lys	Ser	Leu	Phe	Glu	Ile	Leu	Val	Leu	Met	Gly	Lys	Gln	Asn
			165					170					175		
Ile	Pro	Leu	Asp	Gly	His	Glu	Ala	Asp	Glu	Val	Pro	Glu	Gly	Leu	Phe
		180					185					190			
Ala	Pro	Asp	Asn	Phe	Gln	Ala	Leu	Leu	Glu	Cys	Arg	Ile	Asn	Ser	Gly
	195					200					205				
Glu	Glu	Val	Leu	Arg	Lys	Arg	Phe	Glu	Ala	Thr	Ala	Val	Asn	Thr	Leu
210					215						220				
Phe	Cys	Ser	Lys	Thr	Gln	Gln	Arg	His	Met	Leu	Glu	Ile	Cys	Glu	Ser
225				230					235						240
Cys	Ile	Arg	Glu	Glu	Thr	Leu	Arg	Glu	Val	Arg	Asp	Ser	His	Phe	Phe
			245					250					255		
Ser	Ile	Ile	Thr	Asp	Asp	Val	Val	Asp	Ile	Ala	Gly	Glu	Glu	His	Leu
	260						265					270			
Pro	Val	Leu	Val	Arg	Phe	Val	Asp	Asp	Ala	His	Asn	Leu	Arg	Glu	Glu
	275					280					285				
Phe	Val	Gly	Phe	Leu	Pro	Tyr	Glu	Ala	Asp	Ala	Glu	Ile	Leu	Ala	Val
290					295						300				
Lys	Phe	His	Thr	Thr	Ile	Thr	Glu	Lys	Trp	Gly	Leu	Asn	Met	Glu	Tyr
305				310						315					320
Cys	Arg	Gly	Gln	Ala	Tyr	Ile	Val	Ser	Ser	Gly	Phe	Ser	Ser	Lys	Met
			325					330						335	
Lys	Val	Val	Ala	Ser	Arg	Leu	Leu	Glu	Lys	Tyr	Pro	Gln	Ala	Val	Tyr
		340					345					350			
Thr	Leu	Cys	Ser	Ser	Cys	Ala	Leu	Asn	Ala	Trp	Leu	Ala	Lys	Ser	Val
	355					360					365				
Pro	Val	Ile	Gly	Val	Ser	Val	Ala	Leu	Gly	Thr	Ile	Glu	Glu	Val	Cys
370					375						380				
Ser	Phe	Phe	His	Arg	Ser	Pro	Gln	Leu	Leu	Leu	Glu	Leu	Asp	Ser	Val
385					390				395						400

Ile	Ser	Val	Leu	Phe	Gln	Asn	Ser	Glu	Glu	Arg	Ala	Lys	Glu	Leu	Lys
				405					410					415	
Glu	Ile	Cys	His	Ser	Gln	Trp	Thr	Gly	Arg	His	Asp	Ala	Phe	Glu	Ile
			420					425					430		
Leu	Val	Asp	Leu	Leu	Gln	Ala	Leu	Val	Leu	Cys	Leu	Asp	Gly	Ile	Ile
		435					440					445			
Asn	Ser	Asp	Thr	Asn	Val	Arg	Trp	Asn	Asn	Tyr	Ile	Ala	Gly	Arg	Ala
	450				455						460				
Phe	Val	Leu	Cys	Ser	Ala	Val	Thr	Asp	Phe	Asp	Phe	Ile	Val	Thr	Ile
465					470				475						480
Val	Val	Leu	Lys	Asn	Val	Leu	Ser	Phe	Thr	Arg	Ala	Phe	Gly	Lys	Asn
			485						490					495	
Leu	Gln	Gly	Gln	Thr	Ser	Asp	Val	Phe	Phe	Ala	Ala	Ser	Ser	Leu	Thr
			500					505					510		
Ala	Val	Leu	His	Ser	Leu	Asn	Glu	Val	Met	Glu	Asn	Ile	Glu	Val	Tyr
		515				520						525			
His	Glu	Phe	Trp	Phe	Glu	Glu	Ala	Thr	Asn	Leu	Ala	Thr	Lys	Leu	Asp
	530					535					540				
Ile	Gln	Met	Lys	Leu	Pro	Gly	Lys	Phe	Arg	Arg	Ala	Gln	Gln	Gly	Asn
545					550				555						560
Leu	Glu	Ser	Gln	Leu	Thr	Ser	Glu	Ser	Tyr	Tyr	Lys	Asp	Thr	Leu	Ser
			565						570					575	
Val	Pro	Thr	Val	Glu	His	Ile	Ile	Gln	Glu	Leu	Lys	Asp	Ile	Phe	Ser
			580					585					590		
Glu	Gln	His	Leu	Lys	Ala	Leu	Lys	Cys	Leu	Ser	Leu	Val	Pro	Ser	Val
		595				600						605			
Met	Gly	Gln	Leu	Lys	Phe	Asn	Thr	Ser	Glu	Glu	His	His	Ala	Asp	Met
	610					615					620				
Tyr	Arg	Ser	Asp	Leu	Pro	Asn	Pro	Asp	Thr	Leu	Ser	Ala	Glu	Leu	His
625					630					635					640
Cys	Trp	Arg	Ile	Lys	Trp	Lys	His	Arg	Gly	Lys	Asp				
			645						650						

<210> 108
 <211> 180
 <212> PRT
 <213> Rattus norvegicus

<220>
 <223> RAT THAP

<221> UNSURE
 <222> 95
 <223> Xaa = any of the twenty amino acids

<400> 108
Arg Gln Cys Cys Asn Arg Tyr Ser Ser Arg Arg Lys Gln Leu Thr Phe
1 5 10 15
His Arg Phe Pro Phe Ser Arg Pro Glu Leu Leu Arg Glu Trp Val Leu
20 25 30
Asn Ile Gly Arg Ala Asp Phe Lys Pro Lys Gln His Thr Val Ile Cys
35 40 45
Ser Glu His Phe Arg Pro Glu Cys Phe Ser Ala Phe Gly Asn Arg Lys
50 55 60
Asn Leu Lys His Asn Ala Val Pro Thr Val Phe Ala Phe Gln Asn Pro
65 70 75 80

Ala Gln Val Cys Pro Glu Val Gly Ala Gly Gly Asp Ser Ser Xaa Arg
85 90 95
Asn Met Asp Ala Thr Leu Glu Glu Leu Gln Ser Pro Asn Thr Glu Gly
100 105 110
Pro Met Gln Gln Val Leu Pro Asp Arg Gln Ala Thr Glu Ala Met Glu
115 120 125
Ala Ala Gly Leu Pro Ala Gly Pro Leu Gly Leu Lys Arg Pro Leu Pro
130 135 140
Gly Gln Pro Ser Asp His Ser Tyr Ala Leu Leu Asp Leu Asp Thr Leu
145 150 155 160
Lys Lys Lys Leu Phe Leu Thr Leu Lys Glu Asn Lys Arg Leu Arg Lys
165 170 175
Arg Leu Lys Ala
180

<210> 109
<211> 82
<212> PRT
<213> Rattus norvegicus

<400> 109
Met Val Lys Cys Cys Ser Ala Ile Gly Cys Ala Ser Arg Cys Leu Pro
1 5 10 15
Asn Ser Lys Leu Lys Gly Leu Thr Phe His Val Phe Pro Thr Asp Glu
20 25 30
Asn Ile Lys Arg Lys Trp Val Leu Ala Met Lys Arg Leu Asp Val Asn
35 40 45
Thr Ala Gly Ile Trp Glu Pro Ser Leu Gln Pro Glu Ser Phe Tyr Phe
50 55 60
Ile Phe Met Glu Asn Leu Phe Phe Ile Leu Pro Pro Gln Leu Ser His
65 70 75 80
Ala Val

<210> 110
<211> 309
<212> PRT
<213> Rattus norvegicus

<400> 110
Met Pro Arg His Cys Ser Ala Ala Gly Cys Cys Thr Arg Asp Thr Arg
1 5 10 15
Glu Thr Arg Asn Arg Gly Ile Ser Phe His Arg Leu Pro Lys Lys Asp
20 25 30
Asn Pro Arg Arg Gly Leu Trp Leu Ala Asn Cys Gln Arg Leu Asp Pro
35 40 45
Ser Gly Gln Gly Leu Trp Asp Pro Thr Ser Glu Tyr Ile Tyr Phe Cys
50 55 60
Ser Lys His Phe Glu Glu Asn Cys Phe Glu Leu Val Gly Ile Ser Gly
65 70 75 80
Tyr His Arg Leu Lys Glu Gly Ala Val Pro Thr Ile Phe Glu Ser Phe
85 90 95
Ser Lys Leu Arg Arg Thr Ala Lys Thr Lys Val His Gly Tyr Pro Pro
100 105 110
Gly Leu Pro Asp Val Ser Arg Leu Arg Arg Cys Arg Lys Arg Cys Ser

<400> 112

Met	Val	Lys	Cys	Cys	Ser	Ala	Ile	Gly	Cys	Ala	Ser	Arg	Cys	Leu	Pro
1				5					10					15	
Asn	Ser	Lys	Leu	Lys	Gly	Leu	Thr	Phe	His	Val	Phe	Pro	Thr	Asp	Glu
			20					25					30		
Lys	Val	Lys	Arg	Lys	Trp	Val	Leu	Ala	Met	Lys	Arg	Leu	Asp	Val	Asn
		35					40					45			
Ala	Ala	Gly	Met	Trp	Glu	Pro	Lys	Lys	Gly	Asp	Val	Leu	Cys	Ser	Arg
	50					55					60				
His	Phe	Lys	Lys	Thr	Asp	Phe	Asp	Arg	Thr	Thr	Pro	Asn	Ile	Lys	Leu
65					70					75					80
Lys	Pro	Gly	Val	Ile	Pro	Ser	Ile	Phe	Asp	Ser	Pro	Ser	His	Leu	Thr
				85					90					95	
Gly	Glu	Glu	Arg	Lys	Ala	Pro	Leu								
				100											

<210> 113

<211> 235

<212> PRT

<213> Sus scrofa

<220>

<221> UNSURE

<222> 57, 124, 192

<223> Xaa = any of the twenty amino acids

<400> 113

Met	Pro	Arg	His	Cys	Ser	Ala	Ala	Gly	Cys	Cys	Thr	Arg	Asp	Thr	Arg
1				5					10					15	
Glu	Thr	Arg	Asn	Arg	Gly	Ile	Ser	Phe	His	Arg	Leu	Pro	Lys	Lys	Asp
			20					25					30		
Asn	Pro	Arg	Arg	Gly	Leu	Trp	Leu	Ala	Asn	Cys	Gln	Arg	Leu	Asp	Pro
		35					40					45			
Ser	Gly	Gln	Gly	Leu	Trp	Asp	Pro	Xaa	Ser	Glu	Tyr	Ile	Tyr	Phe	Cys
	50					55					60				
Ser	Lys	His	Phe	Glu	Glu	Asn	Cys	Phe	Glu	Leu	Val	Gly	Ile	Ser	Gly
65					70					75					80
Tyr	His	Arg	Leu	Lys	Glu	Gly	Ala	Val	Pro	Thr	Ile	Phe	Glu	Ser	Phe
			85						90					95	
Ser	Lys	Leu	Arg	Arg	Thr	Ala	Lys	Thr	Lys	Gly	His	Ser	Tyr	Pro	Pro
		100						105					110		
Gly	Pro	Pro	Asp	Val	Ser	Arg	Leu	Arg	Arg	Cys	Xaa	Lys	Arg	Cys	Ser
		115					120					125			
Glu	Gly	Arg	Gly	Pro	Thr	Thr	Pro	Phe	Ser	Pro	Pro	Pro	Pro	Ala	Asp
	130					135						140			
Val	Thr	Cys	Phe	Pro	Val	Glu	Glu	Ala	Ser	Ala	Pro	Ala	Ala	Leu	Ser
145					150					155					160
Ala	Ser	Pro	Thr	Gly	Arg	Leu	Glu	Pro	Gly	Leu	Ser	Ser	Pro	Phe	Ser
				165					170					175	
Asp	Leu	Leu	Gly	Pro	Leu	Gly	Ala	Gln	Ala	Asp	Glu	Ala	Gly	Cys	Xaa
			180					185					190		
Thr	Gln	Pro	Ser	Pro	Glu	Arg	Glu	Pro	Glu	Arg	Gln	Pro	Ser	Pro	Leu
		195					200					205			
Glu	Pro	Arg	Pro	Val	Ser	Pro	Ser	Ala	Tyr	Met	Leu	Arg	Leu	Pro	Pro
	210						215					220			

Pro Ala Gly Ala Tyr Ile Gln Asn Glu His Ser
 225 230 235

<210> 114
 <211> 149
 <212> PRT
 <213> Sus scrofa

<400> 114
 Met Thr Arg Ser Cys Ser Ala Val Gly Cys Ser Thr Arg Asp Thr Val
 1 5 10 15
 Leu Ser Arg Glu Arg Gly Leu Ser Phe His Gln Phe Pro Thr Asp Thr
 20 25 30
 Ile Gln Arg Ser Gln Trp Ile Arg Ala Val Asn Arg Met Asp Pro Arg
 35 40 45
 Ser Lys Lys Ile Trp Ile Pro Gly Pro Gly Ala Met Leu Cys Ser Lys
 50 55 60
 His Phe Gln Glu Ser Asp Phe Glu Ser Tyr Gly Ile Arg Arg Lys Leu
 65 70 75 80
 Lys Lys Gly Ala Val Pro Ser Val Ser Leu Tyr Lys Val Leu Gln Gly
 85 90 95
 Ala His Leu Lys Gly Lys Ala Arg Gln Lys Ile Leu Lys Gln Pro Leu
 100 105 110
 Pro Asp Asn Ser Gln Glu Val Ala Thr Glu Asp His Asn Tyr Ser Leu
 115 120 125
 Lys Gly Pro Leu Thr Ile Gly Ala Glu Lys Leu Ala Glu Val Gln Gln
 130 135 140
 Met Leu Gln Val Ser
 145

<210> 115
 <211> 43
 <212> PRT
 <213> Mus musculus

<400> 115
 Val Leu Glu Asp Val Ala Ala Ala Glu Gln Gly Leu Arg Glu Leu Gln
 1 5 10 15
 Arg Gly Arg Arg Gln Cys Arg Glu Arg Val Cys Ala Leu Arg Ala Ala
 20 25 30
 Ala Glu Gln Arg Glu Ala Arg Cys Arg Asp Gly
 35 40

<210> 116
 <211> 45
 <212> PRT
 <213> Mus musculus

<400> 116
 Gln Leu Glu Gln Gln Val Glu Lys Leu Arg Lys Lys Leu Lys Thr Ala
 1 5 10 15
 Gln Gln Arg Cys Arg Arg Gln Glu Arg Gln Leu Glu Lys Leu Lys Glu
 20 25 30
 Val Val His Phe Gln Arg Glu Lys Asp Asp Ala Ser Glu

35

40

45

<210> 117
 <211> 45
 <212> PRT
 <213> Homo sapiens

<400> 117
 Gln Leu Glu Gln Gln Val Glu Lys Leu Arg Lys Lys Leu Lys Thr Ala
 1 5 10 15
 Gln Gln Arg Cys Arg Arg Gln Glu Arg Gln Leu Glu Lys Leu Lys Glu
 20 25 30
 Val Val His Phe Gln Lys Glu Lys Asp Asp Val Ser Glu
 35 40 45

<210> 118
 <211> 342
 <212> PRT
 <213> Homo sapiens

<400> 118
 Met Ala Thr Gly Gly Tyr Arg Thr Ser Ser Gly Leu Gly Gly Ser Thr
 1 5 10 15
 Thr Asp Phe Leu Glu Glu Trp Lys Ala Lys Arg Glu Lys Met Arg Ala
 20 25 30
 Lys Gln Asn Pro Pro Gly Pro Ala Pro Pro Gly Gly Gly Ser Ser Asp
 35 40 45
 Ala Ala Gly Lys Pro Pro Ala Gly Ala Leu Gly Thr Pro Ala Ala Ala
 50 55 60
 Ala Ala Asn Glu Leu Asn Asn Asn Leu Pro Gly Gly Ala Pro Ala Ala
 65 70 75 80
 Pro Ala Val Pro Gly Pro Gly Gly Val Asn Cys Ala Val Gly Ser Ala
 85 90 95
 Met Leu Thr Arg Ala Pro Pro Ala Arg Gly Pro Arg Arg Ser Glu Asp
 100 105 110
 Glu Pro Pro Ala Ala Ser Ala Ser Ala Ala Pro Pro Pro Gln Arg Asp
 115 120 125
 Glu Glu Glu Pro Asp Gly Val Pro Glu Lys Gly Lys Ser Ser Gly Pro
 130 135 140
 Ser Ala Arg Lys Gly Lys Gly Gln Ile Glu Lys Arg Lys Leu Arg Glu
 145 150 155 160
 Lys Arg Arg Ser Thr Gly Val Val Asn Ile Pro Ala Ala Glu Cys Leu
 165 170 175
 Asp Glu Tyr Glu Asp Asp Glu Ala Gly Gln Lys Glu Arg Lys Arg Glu
 180 185 190
 Asp Ala Ile Thr Gln Gln Asn Thr Ile Gln Asn Glu Ala Val Asn Leu
 195 200 205
 Leu Asp Pro Gly Ser Ser Tyr Leu Leu Gln Glu Pro Pro Arg Thr Val
 210 215 220
 Ser Gly Arg Tyr Lys Ser Thr Thr Ser Val Ser Glu Glu Asp Val Ser
 225 230 235 240
 Ser Arg Tyr Ser Arg Thr Asp Arg Ser Gly Phe Pro Arg Tyr Asn Arg
 245 250 255
 Asp Ala Asn Val Ser Gly Thr Leu Val Ser Ser Ser Thr Leu Glu Lys
 260 265 270

Lys Ile Glu Asp Leu Glu Lys Glu Val Val Thr Glu Arg Gln Glu Asn
 275 280 285
 Leu Arg Leu Val Arg Leu Met Gln Asp Lys Glu Glu Met Ile Gly Lys
 290 295 300
 Leu Lys Glu Glu Ile Asp Leu Leu Asn Arg Asp Leu Asp Asp Ile Glu
 305 310 315 320
 Asp Glu Asn Glu Gln Leu Lys Gln Glu Asn Lys Thr Leu Leu Lys Val
 325 330 335
 Val Gly Gln Leu Thr Arg
 340

<210> 119
 <211> 134
 <212> PRT
 <213> Homo sapiens

<400> 119
 Met Ala Gln Ser Leu Ala Leu Ser Leu Leu Ile Leu Val Leu Ala Phe
 1 5 10 15
 Gly Ile Pro Arg Thr Gln Gly Ser Asp Gly Gly Ala Gln Asp Cys Cys
 20 25 30
 Leu Lys Tyr Ser Gln Arg Lys Ile Pro Ala Lys Val Val Arg Ser Tyr
 35 40 45
 Arg Lys Gln Glu Pro Ser Leu Gly Cys Ser Ile Pro Ala Ile Leu Phe
 50 55 60
 Leu Pro Arg Lys Arg Ser Gln Ala Glu Leu Cys Ala Asp Pro Lys Glu
 65 70 75 80
 Leu Trp Val Gln Gln Leu Met Gln His Leu Asp Lys Thr Pro Ser Pro
 85 90 95
 Gln Lys Pro Ala Gln Gly Cys Arg Lys Asp Arg Gly Ala Ser Lys Thr
 100 105 110
 Gly Lys Lys Gly Lys Gly Ser Lys Gly Cys Lys Arg Thr Glu Arg Ser
 115 120 125
 Gln Thr Pro Lys Gly Pro
 130

<210> 120
 <211> 766
 <212> PRT
 <213> Drosophila melanogaster

<400> 120
 Met Lys Tyr Cys Lys Phe Cys Cys Lys Ala Val Thr Gly Val Lys Leu
 1 5 10 15
 Ile His Val Pro Lys Cys Ala Ile Lys Arg Lys Leu Trp Glu Gln Ser
 20 25 30
 Leu Gly Cys Ser Leu Gly Glu Asn Ser Gln Ile Cys Asp Thr His Phe
 35 40 45
 Asn Asp Ser Gln Trp Lys Ala Ala Pro Ala Lys Gly Gln Thr Phe Lys
 50 55 60
 Arg Arg Arg Leu Asn Ala Asp Ala Val Pro Ser Lys Val Ile Glu Pro
 65 70 75 80
 Glu Pro Glu Lys Ile Lys Glu Gly Tyr Thr Ser Gly Ser Thr Gln Thr
 85 90 95
 Glu Ser Cys Ser Leu Phe Asn Glu Asn Lys Ser Leu Arg Glu Lys Ile

1	5	10	15
Cys His Tyr Gly Val Leu Thr Cys Gly Ser Cys Lys Val Phe Phe Lys			
20	25	30	
Arg Ala Val Glu Gly Gln His Asn Tyr Leu Cys Ala Gly Arg Asn Asp			
35	40	45	
Cys Ile Ile Asp Lys Ile Arg Arg Lys Asn Cys Pro Ala Cys Arg Tyr			
50	55	60	
Arg Lys Cys Leu Gln Ala Gly Met Asn Leu Glu Ala Arg Lys Thr Lys			
65	70	75	80
Lys			

<210> 123
 <211> 89
 <212> PRT
 <213> Homo sapiens

<400> 123
Met Val Gln Ser Cys Ser Ala Tyr Gly Cys Lys Asn Arg Tyr Asp Lys
1 5 10 15
Asp Lys Pro Val Ser Phe His Lys Phe Pro Leu Thr Arg Pro Ser Leu
20 25 30
Cys Lys Glu Trp Glu Ala Ala Val Arg Arg Lys Asn Phe Lys Pro Thr
35 40 45
Lys Tyr Ser Ser Ile Cys Ser Glu His Phe Thr Pro Asp Cys Phe Lys
50 55 60
Arg Glu Cys Asn Asn Lys Leu Leu Lys Glu Asn Ala Val Pro Thr Ile
65 70 75 80
Phe Leu Cys Thr Glu Pro His Asp Lys
85

<210> 124
 <211> 85
 <212> PRT
 <213> Drosophila melanogaster

<400> 124
Met Lys Tyr Cys Lys Phe Cys Cys Lys Ala Val Thr Gly Val Lys Leu
1 5 10 15
Ile His Val Pro Lys Cys Ala Ile Lys Arg Lys Leu Trp Glu Gln Ser
20 25 30
Leu Gly Cys Ser Leu Gly Glu Asn Ser Gln Ile Cys Asp Thr His Phe
35 40 45
Asn Asp Ser Gln Trp Lys Ala Ala Pro Ala Lys Gly Gln Thr Phe Lys
50 55 60
Arg Arg Arg Leu Asn Ala Asp Ala Val Pro Ser Lys Val Ile Glu Pro
65 70 75 80
Glu Pro Glu Lys Ile
85

<210> 125
 <211> 58
 <212> PRT
 <213> Artificial Sequence

<220>

<223> THAP Domain consensus

<221> UNSURE

<222> 2-3, 7, 9, 13-17, 19, 21-23, 25-26, 28, 35, 38-39, 41, 45-50, 52, 55-56

<223> Xaa = any of the twenty amino acids

<400> 125

Met	Val	Xaa	Xaa	Cys	Ser	Xaa	Tyr	Xaa	Cys	Lys	Asn	Xaa	Xaa	Xaa	Xaa
1				5					10					15	
Xaa	Lys	Xaa	Val	Xaa	Xaa	Xaa	Lys	Xaa	Xaa	Leu	Xaa	Arg	Pro	Ser	Leu
			20					25					30		
Cys	Lys	Xaa	Trp	Glu	Xaa	Xaa	Val	Xaa	Arg	Lys	Asn	Xaa	Xaa	Xaa	Xaa
		35					40					45			
Xaa	Xaa	Ser	Xaa	Ile	Cys	Xaa	Xaa	His	Phe						
		50					55								

<210> 126

<211> 89

<212> PRT

<213> Homo sapiens

<400> 126

Met	Val	Gln	Ser	Cys	Ser	Ala	Tyr	Gly	Cys	Lys	Asn	Arg	Tyr	Asp	Lys
1				5					10					15	
Asp	Lys	Pro	Val	Ser	Phe	His	Lys	Phe	Pro	Leu	Thr	Arg	Pro	Ser	Leu
			20					25					30		
Cys	Lys	Glu	Trp	Glu	Ala	Ala	Val	Arg	Arg	Lys	Asn	Phe	Lys	Pro	Thr
		35					40					45			
Lys	Tyr	Ser	Ser	Ile	Cys	Ser	Glu	His	Phe	Thr	Pro	Asp	Cys	Phe	Lys
	50					55					60				
Arg	Glu	Cys	Asn	Asn	Lys	Leu	Leu	Lys	Glu	Asn	Ala	Val	Pro	Thr	Ile
65					70					75					80
Phe	Leu	Cys	Thr	Glu	Pro	His	Asp	Lys							
				85											

<210> 127

<211> 89

<212> PRT

<213> Homo sapiens

<400> 127

Met	Pro	Lys	Ser	Cys	Ala	Ala	Arg	Gln	Cys	Cys	Asn	Arg	Tyr	Ser	Ser
1				5					10					15	
Arg	Arg	Lys	Gln	Leu	Thr	Phe	His	Arg	Phe	Pro	Phe	Ser	Arg	Pro	Glu
			20					25					30		
Leu	Leu	Lys	Glu	Trp	Val	Leu	Asn	Ile	Gly	Arg	Gly	Asn	Phe	Lys	Pro
		35					40					45			
Lys	Gln	His	Thr	Val	Ile	Cys	Ser	Glu	His	Phe	Arg	Pro	Glu	Cys	Phe
	50					55				60					
Ser	Ala	Phe	Gly	Asn	Arg	Lys	Asn	Leu	Lys	His	Asn	Ala	Val	Pro	Thr
65					70					75					80
Val	Phe	Ala	Phe	Gln	Asp	Pro	Thr	Gln							

<210> 128
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 128
 Met Pro Arg Tyr Cys Ala Ala Ile Cys Cys Lys Asn Arg Arg Gly Arg
 1 5 10 15
 Asn Asn Lys Asp Arg Lys Leu Ser Phe Tyr Pro Phe Pro Leu His Asp
 20 25 30
 Lys Glu Arg Leu Glu Lys Trp Leu Lys Asn Met Lys Arg Asp Ser Trp
 35 40 45
 Val Pro Ser Lys Tyr Gln Phe Leu Cys Ser Asp His Phe Thr Pro Asp
 50 55 60
 Ser Leu Asp Ile Arg Trp Gly Ile Arg Tyr Leu Lys Gln Thr Ala Val
 65 70 75 80
 Pro Thr Ile Phe Ser Leu Pro Glu Asp Asn
 85 90

<210> 129
 <211> 92
 <212> PRT
 <213> Homo sapiens

<400> 129
 Met Pro Lys Tyr Cys Arg Ala Pro Asn Cys Ser Asn Thr Ala Gly Arg
 1 5 10 15
 Leu Gly Ala Asp Asn Arg Pro Val Ser Phe Tyr Lys Phe Pro Leu Lys
 20 25 30
 Asp Gly Pro Arg Leu Gln Ala Trp Leu Gln His Met Gly Cys Glu His
 35 40 45
 Trp Val Pro Ser Cys His Gln His Leu Cys Ser Glu His Phe Thr Pro
 50 55 60
 Ser Cys Phe Gln Trp Arg Trp Gly Val Arg Tyr Leu Arg Pro Asp Ala
 65 70 75 80
 Val Pro Ser Ile Phe Ser Arg Gly Pro Pro Ala Lys
 85 90

<210> 130
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 130
 Met Val Ile Cys Cys Ala Ala Val Asn Cys Ser Asn Arg Gln Gly Lys
 1 5 10 15
 Gly Glu Lys Arg Ala Val Ser Phe His Arg Phe Pro Leu Lys Asp Ser
 20 25 30
 Lys Arg Leu Ile Gln Trp Leu Lys Ala Val Gln Arg Asp Asn Trp Thr
 35 40 45
 Pro Thr Lys Tyr Ser Phe Leu Cys Ser Glu His Phe Thr Lys Asp Ser
 50 55 60

Phe	Ser	Lys	Arg	Leu	Glu	Asp	Gln	His	Arg	Leu	Leu	Lys	Pro	Thr	Ala
65					70					75					80
Val	Pro	Ser	Ile	Phe	His	Leu	Thr	Glu	Lys						
				85					90						

<210> 131
 <211> 89
 <212> PRT
 <213> Homo sapiens

<400> 131

Met	Pro	Thr	Asn	Cys	Ala	Ala	Ala	Gly	Cys	Ala	Thr	Thr	Tyr	Asn	Lys
1				5					10					15	
His	Ile	Asn	Ile	Ser	Phe	His	Arg	Phe	Pro	Leu	Asp	Pro	Lys	Arg	Arg
			20					25					30		
Lys	Glu	Trp	Val	Arg	Leu	Val	Arg	Arg	Lys	Asn	Phe	Val	Pro	Gly	Lys
		35					40					45			
His	Thr	Phe	Leu	Cys	Ser	Lys	His	Phe	Glu	Ala	Ser	Cys	Phe	Asp	Leu
	50					55					60				
Thr	Gly	Gln	Thr	Arg	Arg	Leu	Lys	Met	Asp	Ala	Val	Pro	Thr	Ile	Phe
65					70					75					80
Asp	Phe	Cys	Thr	His	Ile	Lys	Ser	Met							
				85											

<210> 132
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 132

Met	Pro	Asn	Phe	Cys	Ala	Ala	Pro	Asn	Cys	Thr	Arg	Lys	Ser	Thr	Gln
1				5					10					15	
Ser	Asp	Leu	Ala	Phe	Phe	Arg	Phe	Pro	Arg	Asp	Pro	Ala	Arg	Cys	Gln
			20					25					30		
Lys	Trp	Val	Glu	Asn	Cys	Arg	Arg	Ala	Asp	Leu	Glu	Asp	Lys	Thr	Pro
		35					40					45			
Asp	Gln	Leu	Asn	Lys	His	Tyr	Arg	Leu	Cys	Ala	Lys	His	Phe	Glu	Thr
	50					55					60				
Ser	Met	Ile	Cys	Arg	Thr	Ser	Pro	Tyr	Arg	Thr	Val	Leu	Arg	Asp	Asn
65					70					75					80
Ala	Ile	Pro	Thr	Ile	Phe	Asp	Leu	Thr	Ser						
				85					90						

<210> 133
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 133

Met	Pro	Arg	His	Cys	Ser	Ala	Ala	Gly	Cys	Cys	Thr	Arg	Asp	Thr	Arg
1				5					10					15	
Glu	Thr	Arg	Asn	Arg	Gly	Ile	Ser	Phe	His	Arg	Leu	Pro	Lys	Lys	Asp
			20					25					30		
Asn	Pro	Arg	Arg	Gly	Leu	Trp	Leu	Ala	Asn	Cys	Gln	Arg	Leu	Asp	Pro

Met	Pro	Gly	Phe	Thr	Cys	Cys	Val	Pro	Gly	Cys	Tyr	Asn	Asn	Ser	His
1				5					10					15	
Arg	Asp	Lys	Ala	Leu	His	Phe	Tyr	Thr	Phe	Pro	Lys	Asp	Ala	Glu	Leu
			20					25					30		
Arg	Arg	Leu	Trp	Leu	Lys	Asn	Val	Ser	Arg	Ala	Gly	Val	Ser	Gly	Cys
		35					40					45			
Phe	Ser	Thr	Phe	Gln	Pro	Thr	Thr	Gly	His	Arg	Leu	Cys	Ser	Val	His
	50					55					60				
Phe	Gln	Gly	Gly	Arg	Lys	Thr	Tyr	Thr	Val	Arg	Val	Pro	Thr	Ile	Phe
65					70					75					80
Pro	Leu	Arg	Gly	Val	Asn	Glu	Arg	Lys	Val						
				85					90						

<210> 137
 <211> 90
 <212> PRT
 <213> Homo sapiens

Met	Pro	Ala	Arg	Cys	Val	Ala	Ala	His	Cys	Gly	Asn	Thr	Thr	Lys	Ser
1				5					10					15	
Gly	Lys	Ser	Leu	Phe	Arg	Phe	Pro	Lys	Asp	Arg	Ala	Val	Arg	Leu	Leu
			20					25					30		
Trp	Asp	Arg	Phe	Val	Arg	Gly	Cys	Arg	Ala	Asp	Trp	Tyr	Gly	Gly	Asn
		35				40						45			
Asp	Arg	Ser	Val	Ile	Cys	Ser	Asp	His	Phe	Ala	Pro	Ala	Cys	Phe	Asp
	50					55					60				
Val	Ser	Ser	Val	Ile	Gln	Lys	Asn	Leu	Arg	Phe	Ser	Gln	Arg	Leu	Arg
65					70					75					80
Leu	Val	Ala	Gly	Ala	Val	Pro	Thr	Leu	His						
				85					90						

<210> 138
 <211> 85
 <212> PRT
 <213> Drosophila melanogaster

Met	Lys	Tyr	Cys	Lys	Phe	Cys	Cys	Lys	Ala	Val	Thr	Gly	Val	Lys	Leu
1				5					10					15	
Ile	His	Val	Pro	Lys	Cys	Ala	Ile	Lys	Arg	Lys	Leu	Trp	Glu	Gln	Ser
			20					25					30		
Leu	Gly	Cys	Ser	Leu	Gly	Glu	Asn	Ser	Gln	Ile	Cys	Asp	Thr	His	Phe
		35				40						45			
Asn	Asp	Ser	Gln	Trp	Lys	Ala	Ala	Pro	Ala	Lys	Gly	Gln	Thr	Phe	Lys
	50					55					60				
Arg	Arg	Arg	Leu	Asn	Ala	Asp	Ala	Val	Pro	Ser	Lys	Val	Ile	Glu	Pro
65					70					75					80
Glu	Pro	Glu	Lys	Ile											
				85											

<210> 139
 <211> 63
 <212> PRT

<213> Artificial Sequence

<220>

<223> THAP Domain consensus

<221> UNSURE

<222> 4-5, 7, 9-10, 12, 15-20, 22, 24, 32, 35, 38-39, 42-43, 46-47, 49-51, 53-61, 63

<223> Xaa = any of the twenty amino acids

<400> 139

Met	Pro	Lys	Xaa	Xaa	Cys	Xaa	Ala	Xaa	Xaa	Cys	Xaa	Asn	Arg	Xaa	Xaa
1				5				10						15	
Xaa	Xaa	Xaa	Xaa	Lys	Xaa	Lys	Xaa	Val	Ser	Phe	His	Lys	Phe	Pro	Xaa
			20				25						30		
His	Asp	Xaa	His	Asp	Xaa	Xaa	Arg	Xaa	Xaa	Trp	Val	Xaa	Xaa	Val	
	35						40				45				
Xaa	Xaa	Xaa	Arg	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Trp	Xaa		
	50				55						60				

<210> 140

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> DR-5-related sequence

<400> 140

gggcatacta ctggcaa

17

<210> 141

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> DR-5-related sequence

<400> 141

gggcaaactg tgggcat

17

<210> 142

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> DR-5-related sequence

<400> 142

gggcatacta ctggcaa

17

<210> 143

<211> 17

<212> DNA

<213> Artificial Sequence
 <220>
 <223> DR-5-related sequence
 <400> 143
 gggcaaacta ctggcaa 17
 <210> 144
 <211> 17
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> DR-5-related sequence
 <400> 144
 gggccagttc gttgcaa 17
 <210> 145
 <211> 16
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> DR-5-related sequence
 <400> 145
 gggcatgtac tggcaa 16
 <210> 146
 <211> 16
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> DR-5-related sequence
 <400> 146
 gggcaactgt gggcaa 16
 <210> 147
 <211> 18
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> DR-5-related sequence
 <400> 147
 gggcaacact actggcaa 18
 <210> 148
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> DR-5-related sequence

<400> 148
 gggcaaagta ctggcaa 17

<210> 149
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> DR-5 consensus sequence

<221> unsure
 <222> 7-11
 <223> n = any of the four nucleotides

<400> 149
 gggcaannnn ntggcaa 17

<210> 150
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> ER-11-related sequence

<400> 150
 ttgccagtac taagtgtggg caa 23

<210> 151
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> ER-11-related sequence

<400> 151
 ctgccagtac atagtgtggg caa 23

<210> 152
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> ER-11-related sequence

<400> 152
 ttgccagtac taagtgtggg caa 23

<210> 153
 <211> 23
 <212> DNA

<213> Artificial Sequence
 <220>
 <223> ER-11-related sequence
 <400> 153
 ctgccagtag atactgtggg caa 23
 <210> 154
 <211> 24
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> ER-11-related sequence
 <400> 154
 ttgccagtag ttaggtgtgg gcga 24
 <210> 155
 <211> 23
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> ER-11-related sequence
 <400> 155
 ttgccagtag ttagtgtggg caa 23
 <210> 156
 <211> 23
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> ER-11-related sequence
 <400> 156
 ttgccagtag ctactaaggg caa 23
 <210> 157
 <211> 23
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> ER-11-related sequence
 <400> 157
 ttgccagtag ttagtgtggg cag 23
 <210> 158
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> ER-11-related sequence

<400> 158
 ctgccagtag taagtgtggg cag 23

<210> 159
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> ER-11 consensus sequence

<221> unsure
 <222> 7-17
 <223> n = any of the four nucleotides

<400> 159
 ttgccannnn nnnnnnnggg caa 23

<210> 160
 <211> 642
 <212> DNA
 <213> Homo sapiens

<400> 160
 atggtgcagt cctgctccgc ctacggctgc aagaaccgct acgacaagga caagcccgtt 60
 tctttccaca agtttcctct tactcgacct agtctttgta aagaatggga ggcagctgtc 120
 agaagaaaaa actttaaacc caccaagtat agcagtattt gttcagagca ctttactcca 180
 gactgcttta agagagagtg caacaacaag ttactgaaag agaatgctgt gcccaacaata 240
 tttctttgta ctgagccaca tgacaagaaa gaagatcttc tggagccaca ggaacagctt 300
 cccccacctc ctttaccgcc tcctgtttcc cagggtgatg ctgctattgg attactaatg 360
 ccgcctcttc agaccctgt taatctctca gttttctgtg accacaacta tactgtggag 420
 gatacaatgc accagcggaa aaggattcat cagctagaac agcaagttga aaaactcaga 480
 aagaagctca agaccgcaca gcagcgatgc agaaggcaag aacggcagct tgaaaaatta 540
 aaggaggttg ttcacttcca gaaagagaaa gacgacgtat cagaaagagg ttatgtgatt 600
 ctaccaaagt actactttga aatagttgaa gtaccagcat aa 642

<210> 161
 <211> 687
 <212> DNA
 <213> Homo sapiens

<400> 161
 atgccgacca attgcgctgc ggcgggctgt gccactacct acaacaagca cattaacatc 60
 agcttccaca ggtttccttt ggatcctaata agaagaaaag aatgggttcg cctgggttagg 120
 cgcaaaaatt ttgtgccagg aaaaacacact tttctttgtt caaagcactt tgaagcctcc 180
 tgttttgacc taacaggaca aactcgacga cttaaaatgg atgctgttcc aaccattttt 240
 gatttttgta cccatataaa gtctatgaaa ctcaagtcaa ggaatctttt gaagaaaaac 300
 aacagttgtt ctccagctgg accatctaata ttaaaatcaa acattagtag tcagcaagta 360
 ctacttgaac acagctatgc ctttaggaat cctatggagg caaaaaagag gatcattaaa 420
 ctggaaaaag aaatagcaag ctttaagaaga aaaatgaaaa cttgcctaca aaaggaacgc 480
 agagcaactc gaagatggat caaagccacg tgtttggtta agaatttaga agcaaatagt 540
 gtattaccta aaggtacatc agaacacatg ttaccaactg ccttaagcag tcttcctttg 600
 gaagatttta agatccttga acaagatcaa caagataaaa cactgctaag tctaaatcta 660
 aaacagacca agagtacctt catttaa 687

<210> 162
 <211> 720
 <212> DNA
 <213> Homo sapiens

<400> 162
 atgccgaagt cgtgcgcggc ccggcagtcg tgcaaccgct acagcagccg caggaagcag 60
 ctcaccttcc accggtttcc gttcagccgc ccggagctgc tgaaggaatg ggtgctgaac 120
 atcggccggg gcaacttcaa gcccagcag cacacggtca tctgctccga gcacttccgg 180
 ccagagtgtc tcagcgcctt tggaaccgc aagaacctaa agcacaatgc cgtgcccacg 240
 gtgttcgcct ttcaggacct cacacagcag gtgagggaga acacagacct tgccagttag 300
 agaggaaatg ccagctcttc tcagaaagaa aaggtcctcc ctgaggcggg ggccggagag 360
 gacagtcctg ggagaaacat ggacactgca cttgaagagc ttcagttgcc cccaaatgcc 420
 gaaggccacg taaaacaggt ctgccacgg aggcgcgaag caacagaggc tgttgccgg 480
 ccgactggcc ctgcaggcct gagaaggacc cccaacaagc agccatctga tcacagctat 540
 gcccttttgg acttagattc cctgaagaaa aaactcttcc tctactctgaa ggaaaatgaa 600
 aagctccgga agcgttgca ggcccagagg ctggtgatgc gaaggatgtc cagccgcctc 660
 cgtgcttgca aagggcacca gggactccag gccagacttg ggccagagca gcagagctga 720

<210> 163
 <211> 1734
 <212> DNA
 <213> Homo sapiens

<400> 163
 atggtgatct gctgtgcggc cgtgaactgc tccaaccggc agggaaaggc cgagaagcgc 60
 gccgtctcct tccacaggtt cccctaaaag gactcaaaac gtctaatacca atggttaaaa 120
 gctgttcaga gggataactg gactcccact aagtattcat ttctctgtag tgagcatttc 180
 accaaagaca gcttctccaa gaggtctggg gaccagcatc gcctgctgaa gccacggcc 240
 gtgccatcca tcttcacact gaccgagaag aagagggggg ctggaggcca tggccgcacc 300
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<212> DNA

<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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tctccttcac	ccccgccttc	ccaggttgat	gctgctattg	ggctgcta	gccccctctg	360
cagacccctg	ataacctgtc	ggttttctgt	gaccacaatt	acactgtgga	ggatacgatg	420
caccagagga	agaggatcct	gcagctggag	cagcaggtgg	agaaactcag	gaagaagctc	480
aagacggccc	agcagcgggtg	ccggcggcag	gagaggcagc	tcgagaagct	caagggaagtc	540
gtccactttc	agagagagaa	ggacgacgcg	tcgagagggg	gctacgtgat	cctaccaa	600
gactactttg	aaattgttga	agttccagca	tga			633

<210> 173
 <211> 654
 <212> DNA
 <213> Mus musculus

<400> 173						
atgccgacca	attgcgcgcg	ggcgggctgt	gctgctacct	acaacaagca	cattaacatc	60
agcttccaca	ggtttctctt	ggatccataa	agaagaaaag	aatgggttcg	cctgggttagg	120
cgcaaaaatt	ttgtgccagg	aaaacacact	tttctttgct	caaagcactt	tgaagcctcc	180
tgttttgatc	taacaggaca	aaccgcagca	cttaaaatgg	atgctgttcc	aaccattttt	240
gatttttgta	cccatataaa	gtctctgaaa	ctcaagtcaa	ggaatcttct	gaagacaaac	300
aacagttttc	ctccaactgg	accatgta	ttaaagctga	acggcagtc	gcaagtagtc	360
cttgaacaca	gttatgcctt	taggaacct	atggaggcga	aaaaaaggat	aattaaacta	420
gaaaaggaaa	tagcaagctt	gagaaaaaaa	atgaaaactt	gcctgcaaag	agaacgcaga	480
gcaactcgaa	ggtaggatcaa	agccacgtgc	tttgtgaaga	gcttagaagc	aagtaacatg	540
ctacctaaag	gcatctcaga	acagatttta	ccaactgcct	taagcaatct	tcctctggaa	600
gatttaaaaa	gtcttgaaca	agatcaacaa	gataaaacag	taccatttct	ctaa	654

<210> 174
 <211> 657
 <212> DNA
 <213> Mus musculus

<400> 174						
atgccgaagt	cttgccgggc	ccggcaatgc	tgcaaccgct	acagcagccg	caggaagcag	60
ctcaccttcc	accggttccc	cttcagccgc	ccggagctgt	tgaggagtg	ggtgctcaac	120
atcgccggg	ctgacttcaa	gcctaagcag	cacacagtca	tctgctcgga	acacttcaga	180
cccagagtgc	tcagcgcctt	tggaaccgc	aagaacctga	aacacaatgc	tgtgcccacg	240

gtgttcgctt	ttcagaaccc	cacagaggtc	tgccctgagg	tgggggctgg	tggggacagc	300
tcagggagga	acatggacac	cacactggaa	gaacttcagc	ctccaacccc	ggaaggcccc	360
gtgcagcagg	tcttaccaga	tcgagaagca	atggaggcca	cggaggccgc	tggcctgcct	420
gccagccctc	tggggttgaa	gaggccctt	ccgggacagc	cgtctgatca	cagttatgcc	480
ctttcggact	tgataccct	caaaaaaaaa	ctctttctca	caactgaagga	aaacaagagg	540
cttcggaagc	ggctgaaagc	ccagaggctg	ctgttgcgga	ggacatgtgg	ccgcctgaga	600
gcctacagag	agggacagcc	gggacctcgg	gccagacggc	cggcacaggg	aagctga	657

<210> 175

<211> 558

<212> DNA

<213> Mus musculus

<400> 175

atactgcaag	catttggaag	cctaaaaaaaa	ggagatgtgc	tgtgttcaag	acacttcaag	60
aagacagact	ttgacagaag	cactctaaac	actaagctga	aggcaggagc	catcccttct	120
atctttgaat	gtccatatca	cttacaggag	aaaagagaaa	aacttctactg	tagaaaaaac	180
ttccttctca	aaacccttcc	catcacccac	catggccgcc	agcttgttgg	tgccctcctgc	240
attgaagaat	tcgaacccca	gttcattttt	gaacatagct	acagtgttat	ggacagccca	300
aagaagctta	agcataagct	agaccgtgtg	atcatcgagc	tggagaatac	caaggaaagc	360
ctacggaatg	ttttagcccc	agaaaaacac	tttcaaaagt	caactgaggaa	gacaatcatg	420
gaactaaagg	atgaaagtct	gatcagccag	gaaacagcca	atagtctggg	tgctttctgt	480
tgggagtgtc	atcatgaaag	cacagcagga	ggctgtagtt	gtgaagtcac	ttcttatatg	540
cttcactctgc	agttgaca					558

<210> 176

<211> 1719

<212> DNA

<213> Homo sapiens

<400> 176

ctttccgcgc	ggcggaagag	cgcgcgccag	cttcggcaca	cttgggagcc	ggatcccagc	60
cctacgcctc	gtcccctaca	agtcctcca	agccccgccg	gctgctgtgg	gagcggcggc	120
cgtcctctcc	tggaggtcgt	ctcctggcat	cctcggggcc	gcaggaagga	agaggaggca	180
gcggccggag	ccctggtggg	cggcctgagg	tgagagcccc	accggccccct	ttgggaatat	240
ggcgaccggt	ggctaccgga	ccagcagcgg	cctcggcggc	agcaccacag	acttcttgga	300
ggagtggaa	gcgaaacgcg	agaagatgcg	cgccaagcag	aaccccccg	gcccggcccc	360
cccgggaggg	ggcagcagcg	acgccgttgg	gaagcccccc	gcgggggctc	tgggcacccc	420
ggcggccgcc	gctgccaacg	agctcaacaa	caacctccc	ggcggcgcg	cggccgcacc	480
tgccgtcccc	ggtccccggg	gcgtgaactg	cgcggtcggc	tccgccatgc	tgacgcgggc	540
gccccggcc	cgcggcccg	ggcggtcgga	ggacgagccc	ccagccgcct	ctgcctcggc	600
tgcaccgcgc	ccccagcgtg	acgaggagga	gccggacggc	gtcccagaga	agggcaagag	660
ctcgggcccc	agtgccagga	aaggcaaggg	gcagatcgag	aagaggaagc	tgcgggagaa	720
gcggcgctcc	accggcgtgg	tcaacatccc	tgccgcagag	tgcttagatg	agtacgaaga	780
tgatgaagca	gggcagaaag	agcggaaacg	agaagatgca	attacacaac	agaacactat	840
tcagaatgaa	gctgtaaact	tactagatcc	aggcagttcc	tatctgctac	aggagccacc	900
tagaacagtt	tcaggcagat	ataaaagcac	aaccagtgtc	tctgaagaag	atgtctcaag	960
tagatattct	cgaacagata	gaagtgggtt	ccctagatat	aacagggatg	caaatgtttc	1020
aggtactctg	gtttcaagta	gcacactgga	aaagaaaatt	gaagatcttg	aaaaggaagt	1080
agtaacagaa	agacaagaaa	acctaagact	tgtgagactg	atgcaagata	aagaggaaat	1140
gattggaaaa	ctcaaagaag	aaattgattt	attaaataga	gacctagatg	acatagaaga	1200
tgaaaatgaa	cagctaaagc	aggaaaataa	aactcttttg	aaagttgtgg	gtcagctgac	1260
caggtagagg	attcaagact	caatgtggaa	aaaatatattt	aaactactga	ttgaatgtta	1320
atggtcaatg	ctagcacaat	attcctatgc	tgcaatacat	taaaataact	aagcaagtat	1380
atttatttct	agcaaacaga	tgtttgtttt	caaaataactt	ctttttcatt	attggtttta	1440
aaaaagcatt	atccttttat	ctcacaataa	agtaatatct	ttcagttatt	aaatgataga	1500
taatgccttt	ttggttttgt	gtggtattca	actaatacat	ggtttaaaagt	cacagccgtt	1560

tgaatatatt ttatcttggg agtacatddd ctcccttagg aatatacata gtctttgttt 1620
 acatgagttc caatactddd gggatgttac cctcacatgt ccctatactg atgtgtgcca 1680
 ccttttatgt gttgatgact cactcataag gttttggtc 1719

<210> 177
 <211> 878
 <212> DNA
 <213> Homo sapiens

<400> 177
 atcccagccc acgcacagac ccccaacttg cagctgccc cctcaccctc agctctggcc 60
 tcttactcac cctctaccac agacatggct cagtcactgg ctctgagcct ccttatcctg 120
 gttctggcct ttggcatccc caggacccaa ggcagtgatg gaggggctca ggactgttgc 180
 ctcaagtaca gccaaaggaa gattcccgcc aagggtgtcc gcagctaccg gaagcaggaa 240
 ccaagcttag gctgctccat cccagctatc ctgttcttgc cccgcaagcg ctctcaggca 300
 gagctatgtg cagacccaaa ggagctctgg gtgcagcagc tgatgcagca tctggacaag 360
 acaccatccc cacagaaacc agcccagggc tgcaggaagg acaggggggc ctccaagact 420
 ggcaagaaaag gaaagggctc caaaggctgc aagaggactg agcggtcaca gaccctaaa 480
 gggccatagc ccagttagca gcctggagcc ctggagaccc caccagcctc accagcgctt 540
 gaagcctgaa cccaagatgc aagaaggagg ctatgctcag gggccctgga gcagccaccc 600
 catgctggcc ttgccacact ctttctcctg ctttaaccac cccatctgca ttcccagctc 660
 taccctgcat ggctgagctg cccacagcag gccagggtcca gagagaccga ggaggagag 720
 tctcccaggg agcatgagag gaggcagcag gactgtcccc ttgaaggaga atcatcagga 780
 ccttggaact gatacggctc cccagtacac cccacctctt ccttgtaaat atgatttata 840
 cctaactgaa taaaaagctg ttctgtcttc ccacccaa 878

<210> 178
 <211> 34
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Interferon gamma homology motif of THAP1

<400> 178
 Asn Tyr Thr Val Glu Asp Thr Met His Gln Arg Lys Arg Ile His Gln
 1 5 10 15
 Leu Glu Gln Gln Val Glu Lys Leu Arg Lys Lys Leu Lys Thr Ala Gln
 20 25 30
 Gln Arg

<210> 179
 <211> 20
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Nuclear localization sequence of THAP1

<400> 179
 Arg Lys Arg Ile His Gln Leu Glu Gln Gln Val Glu Lys Leu Arg Lys
 1 5 10 15
 Lys Leu Lys Thr
 20

<210> 180
 <211> 38
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Consensus sequence for PAR4 binding domain of THAP

<221> UNSURE
 <222> 3-16, 19, 23, 25-35
 <223> Xaa = any of the twenty amino acids

<221> VARIANT
 <222> 37
 <223> Xaa = Arg or Lys

<400> 180
 Leu Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1 5 10 15
 Gln Arg Xaa Arg Arg Gln Xaa Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30
 Xaa Xaa Xaa Gln Arg Glu
 35

<210> 181
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 181
 gaattcggcc attatggcct gcaggatccg gccgcctcgg cccaggatcc 50

<210> 182
 <211> 111
 <212> PRT
 <213> Homo sapiens

<220>

<400> 182
 Ser Asp Gly Gly Ala Gln Asp Cys Cys Leu Lys Tyr Ser Gln Arg Lys
 1 5 10 15
 Ile Pro Ala Lys Val Val Arg Ser Tyr Arg Lys Gln Glu Pro Ser Leu
 20 25 30
 Gly Cys Ser Ile Pro Ala Ile Leu Phe Leu Pro Arg Lys Arg Ser Gln
 35 40 45
 Ala Glu Leu Cys Ala Asp Pro Lys Glu Leu Trp Val Gln Gln Leu Met
 50 55 60
 Gln His Leu Asp Lys Thr Pro Ser Pro Gln Lys Pro Ala Gln Gly Cys
 65 70 75 80
 Arg Lys Asp Arg Gly Ala Ser Lys Thr Gly Lys Lys Gly Lys Gly Ser
 85 90 95

Lys Gly Cys Lys Arg Thr Glu Arg Ser Gln Thr Pro Lys Gly Pro
100 105 110

<210> 183
<211> 37
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 183
gcgggatccg tagtgatgga ggggctcagg actgttg 37

<210> 184
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 184
gcgggatccc tatggccctt taggggtctg tgacc 35

<210> 185
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 185
ccgaattcag gatggtgcag tctgtctccg cct 33

<210> 186
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 186
cgcggtaccc gctggtactt caactatttc aaagtagtc 39

<210> 187
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 187

ccgaattcag gatggtgcag tcctgctccg cct 33

<210> 188
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 188
cgcggtacct gctggtactt caactatttc aaagtagtc 39

<210> 189
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 189
gcggaattca tggcgaccgg tggctaccgg acc 33

<210> 190
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 190
gcgggatccc tctacctggt cagctgaccc acaac 35

<210> 191
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 191
ccgaattcag gatggtgcag tcctgctccg cct 33

<210> 192
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 192
cgcggtacct gctggtactt caactatttc aaagtagtc 39

<210> 193
 <211> 46
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 193
 cgcgattcg ccatcatggg gttccctaga tataacaggg atgcaa 46

 <210> 194
 <211> 37
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 194
 gccg gatccg gggtccctag atataacagg gatgcaa 37

 <210> 195
 <211> 37
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 195
 gcgctctaga gccatcatgg aggagcagaa gctgatc 37

 <210> 196
 <211> 37
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 196
 cttgcggccg cctctacctg gtcagctgac ccacaac 37

 <210> 197
 <211> 37
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 197
 gcggaattca aagaagatct tctggagcca caggaac 37

 <210> 198
 <211> 39

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 198
 cgcggtatcct gctggtactt caactatttc aaagtagtc 39

 <210> 199
 <211> 35
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 199
 gcggaattca tgccgcctct tcagaccctt gttaa 35

 <210> 200
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 200
 gcggaattca tgcaccagcg gaaaaggatt catcag 36

 <210> 201
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 201
 ccgaattcag gatggtgcag tcctgctccg cct 33

 <210> 202
 <211> 39
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 202
 gcgggatccc ttgtcatgtg gctcagtaca aagaaatat 39

 <210> 203
 <211> 34
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

 <400> 203
 cgggatcctg tgcggtcttg agcttctttc tgag 34

 <210> 204
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 204
 gcgggatccg tcgtctttct ctttctggaa gtgaac 36

 <210> 205
 <211> 36
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Consensus sequence for PAR4 binding domain of THAP

 <221> UNSURE
 <222> 3-14, 17, 21, 23-33, 35
 <223> Xaa = any of the twenty amino acids

 <400> 205
 Leu Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gln Arg
 1 5 10 15
 Xaa Arg Arg Gln Xaa Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30
 Xaa Gln Xaa Glu
 35

 <210> 206
 <211> 39
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 206
 ccgcacagca gcgatgcgct gctcaagaac ggcagcttg 39

 <210> 207
 <211> 39
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

<400> 207
 caagctgccg ttcttgagca gcgcacgcgt gctgtgcgg 39

 <210> 208
 <211> 32
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 208
 gctcaagacc gcacagcaag aacggcagct tg 32

 <210> 209
 <211> 32
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 209
 caagctgccg ttcttgctgt gcggtcttga gc 32

 <210> 210
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 210
 gcgggatccc taaattagaa aggggtgggg gtagcc 36

 <210> 211
 <211> 32
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 211
 gcggaattca tggagcctgc acccgcccga tc 32

 <210> 212
 <211> 37
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 212

gcggaattca aagaagatct tctggagcca caggaac 37

<210> 213
 <211> 39
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 213
 cgcggtacct gctggtactt caactatttc aaagtagtc 39

<210> 214
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 214
 cgcggtaccg tgcagtcctg ctccgcctac ggc 33

<210> 215
 <211> 39
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 215
 ccgaattctt atgctggtac ttcaactatt tcaaagtag 39

<210> 216
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 216
 gccgaattca tgccgaactt ctgcgctgcc ccc 33

<210> 217
 <211> 40
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 217
 cgcggtacct taggttattt tccacagttt cggaattatc 40

<210> 218
 <211> 39
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 218
 gcgctgcagc aagctaaatt taaatgaagg tactcttgg 39

 <210> 219
 <211> 35
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 219
 gcgagatctg ggaaatgccg accaattgcg ctgcg 35

 <210> 220
 <211> 35
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 220
 agaggatcct tagctctgct gctctggccc aagtc 35

 <210> 221
 <211> 32
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 221
 agagaattca tgccgaagtc gtgcgcggcc cg 32

 <210> 222
 <211> 32
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 222
 gcggaattca tgccgcgtca ctgctccgcc gc 32

 <210> 223
 <211> 34

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 223
 gcgggatacct caggccatgc tgctgctcag ctgc 34

 <210> 224
 <211> 38
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 224
 gcgagatctc gatggtgaaa tgctgctccg ccattgga 38

 <210> 225
 <211> 39
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 225
 gcgggatacct catgaaatat agtcctgttc tatgctctc 39

 <210> 226
 <211> 35
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 226
 gcgagatctc gatgcccaag tactgcaggg cgccg 35

 <210> 227
 <211> 37
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 227
 gcggaattct tatgcactgg ggatccgagt gtccagg 37

 <210> 228
 <211> 32
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 228
 gcggaattca tgccggcccg ttgtgtggcc gc 32

<210> 229
 <211> 39
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 229
 gcgggatcct taacatgttt cttctttcac ctgtacagc 39

<210> 230
 <211> 36
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 230
 gcgagatctc gatgcctggc tttacgtgct gcgtgc 36

<210> 231
 <211> 36
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 231
 gcggaattct cacattccgt gcttcttgcg gatgac 36

<210> 232
 <211> 33
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 232
 ccgaattcag gatggtgcag tcctgctccg cct 33

<210> 233
 <211> 39
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Primer

 <400> 233
 cgcggtatcct gctggtactt caactatttc aaagtagtc 39

 <210> 234
 <211> 37
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 234
 gcgctctaga gccatcatgg aggagcagaa gctgac 37

 <210> 235
 <211> 41
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 235
 gcgctctaga ttatgctggt acttcaacta tttcaaagta g 41

 <210> 236
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 236
 cgcggtatccg tgcagtcctg ctccgcctac ggc 33

 <210> 237
 <211> 39
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 237
 cgcggtatcct gctggtactt caactatttc aaagtagtc 39

 <210> 238
 <211> 37
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

<400> 238
 gccggatccg ggttccttag atataacagg gatgcaa 37

 <210> 239
 <211> 35
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 239
 gcgggatccc tctacctggt cagctgaccc acaac 35

 <210> 240
 <211> 35
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 240
 gcgggatcca gtgatggagg ggctcaggac tgttg 35

 <210> 241
 <211> 35
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 241
 gcgggatccc tatggccctt taggggtctg tgacc 35

 <210> 242
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 242
 gcgcatatgg tgcagtcctg ctccgcctac ggc 33

 <210> 243
 <211> 36
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 243
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<210> 244
 <211> 62
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Oligonucleotide

<221> unsure
 <222> 21-45
 <223> n = any of the four nucleotides

<400> 244
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 cc 62

<210> 245
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 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 245
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<210> 246
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<220>
 <223> Primer

<400> 246
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<210> 247
 <211> 2173
 <212> DNA
 <213> Homo sapiens

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 <213> Homo sapiens

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<210> 249
 <211> 1995

<212> DNA

<213> Homo sapiens

<400> 249

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<210> 250

<211> 1999

<212> DNA

<213> Homo sapiens

<400> 250

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<210> 251

<211> 1398

<212> DNA

<213> Homo sapiens

<400> 251

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<210> 252

<211> 2291

<212> DNA

<213> Homo sapiens

<400> 252

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<210> 253

<211> 1242

<212> DNA

<213> Homo sapiens

<400> 253

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<212> DNA

<213> Mus musculus

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<212> DNA

<213> Mus musculus

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<211> 1120

<212> DNA

<213> Mus musculus

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acggccggca cagggaagct gagcctgagc aagctctggg atgtgggggt ggtggcaaca 720
ccttagcagg aagtgggtgt ctggcctgct atgggcgttt ctaccgctg ctgatgctgc 780
aggtgccttg agagtgggat gggatgctgc gacaggcagt tgtcgggtgg gggcccaagt 840
actgcggagg caccgtccca ggtttcttgg gctgaggctg tcagctgtgg ggaagcagca 900
gtgaccaa atgtgagccgtc acaacccct caagagatgc tcccagagg agagctggtc 960
attcttacag ccggtggggt ccttactgtc tccccatagg agccattctg atggcaggca 1020
gggcaagggt ccccgctcagc ctgtatttct gagtgaactc tttttctgcc tggttcgtgt 1080
agatgtggaa taaatctttt gaagtctcca aaaaaaaaaa 1120
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<210> 262
 <211> 558
 <212> DNA
 <213> Mus musculus

<400> 262
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 aagacagact ttgacagaag cactctaaac actaagctga aggcaggagc catcccttct 120
 atctttgaat gtccatatca cttacaggag aaaagagaaa aacttcactg tagaaaaaac 180
 ttccttctca aaacccttcc catcaccac catggccgcc agcttggttg tgcctcctgc 240
 attgaagaat tcgaaccca gttcattttt gaacatagct acagtgttat ggacagcca 300
 aagaagctta agcataagct agaccgtgtg atcatcgagc tggagaatac caaggaaagc 360
 ctacggaatg ttttagcccg agaaaaacac tttcaaaagt cactgaggaa gacaatcatg 420
 gaactaaagg atgaaagtct gatcagccag gaaacagcca atagtctggg tgctttctgt 480
 tgggagtgtc atcatgaaag cacagcagga ggctgtagtt gtgaagtcac ttcttatatg 540
 cttcatctgc agttgaca 558

<210> 263
 <211> 37
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Consensus sequence for PAR4 binding domain of THAP
 <221> UNSURE
 <222> 3-15, 18, 22, 24-34, 36
 <223> Xaa = any of the twenty amino acids

<400> 263
 Leu Glu Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gln
 1 5 10 15
 Arg Xaa Arg Arg Gln Xaa Arg Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30
 Xaa Xaa Gln Xaa Glu
 35

<210> 264
 <211> 22
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 264
 ccgctcgagg tgcagtcctg ct 22

<210> 265
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 265
 cgggatccgc tggacttca actatttca 29

 <210> 266
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 266
 ccgctcgagg atacaatgca cc 22

 <210> 267
 <211> 33
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 267
 gcgggatccg ctggtacttc aactatttca aag 33

 <210> 268
 <211> 86
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic Oligonucleotide

 <400> 268
 ccgctcgagc caccatggag acagacacac tcttgctatg ggtactgctg ctctgggttc 60
 caggttccac tggtgacctc gagatt 86

 <210> 269
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 269
 tagggtcgac gccaccatgg agacag 26

 <210> 270
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Primer

 <400> 270

ccgctcgagg tcaccagtgg a

21

<210> 271
<211> 134
<212> PRT
<213> Human

<400> 271
Met Ala Gln Ser Leu Ala Leu Ser Leu Leu Ile Leu Val Leu Ala Phe
1 5 10 15
Gly Ile Pro Arg Thr Gln Gly Ser Asp Gly Gly Ala Gln Asp Cys Cys
20 25 30
Leu Lys Tyr Ser Gln Arg Lys Ile Pro Ala Lys Val Val Arg Ser Tyr
35 40 45
Arg Lys Gln Glu Pro Ser Leu Gly Cys Ser Ile Pro Ala Ile Leu Phe
50 55 60
Leu Pro Arg Lys Arg Ser Gln Ala Glu Leu Cys Ala Asp Pro Lys Glu
65 70 75 80
Leu Trp Val Gln Gln Leu Met Gln His Leu Asp Lys Thr Pro Ser Pro
85 90 95
Gln Lys Pro Ala Gln Gly Cys Arg Lys Asp Arg Gly Ala Ser Lys Thr
100 105 110
Gly Lys Lys Gly Lys Gly Ser Lys Gly Cys Lys Arg Thr Glu Arg Ser
115 120 125
Gln Thr Pro Lys Gly Pro
130

<210> 272
<211> 878
<212> DNA
<213> Human

<400> 272
atcccagccc acgcacagac ccccaacttg cagctgcccc cctcaccctc agctctggcc 60
tcttactcac cctctaccac agacatggct cagtcactgg ctctgagcct cttatcctg 120
gtttctggcct ttggcatccc caggacccaa ggcagtgatg gaggggctca ggactgttgc 180
ctcaagtaca gccaaaggaa gattcccgcc aagggtgtcc gcagctaccg gaagcaggaa 240
ccaagcttag gctgctccat ccagctatc ctgttcttgc cccgcaagcg ctctcaggca 300
gagctatgtg cagacccaaa ggagctcttg gtgcagcagc tgatgcagca tctggacaag 360
acaccatccc cacagaaacc agcccagggc tgcaggaagg acaggggggc ctccaagact 420
ggcaagaaaag gaaagggtc caaaggctgc aagaggactg agcggtcaca gaccctaaa 480
gggccatagc ccagttagca gcctggagcc ctggagaccc caccagcctc accagcgctt 540
gaagcctgaa cccaagatgc aagaaggagg ctatgctcag gggccctgga gcagccaccc 600
catgctggcc ttgccacact ctttctcctg ctttaaccac cccatctgca ttcccagctc 660
taccctgcat ggctgagctg cccacagcag gccaggtcca gagagaccga ggaggagag 720
tctcccaggg agcatgagag gaggcagcag gactgtcccc ttgaaggaga atcatcagga 780
ccctggacct gatacggctc cccagtacac cccacctctt ccttgtaaat atgatttata 840
cctaactgaa taaaaagctg ttctgtcttc ccacccaa 878

<210> 273
<211> 98
<212> PRT
<213> Human

<400> 273
Met Ala Leu Leu Leu Ala Leu Ser Leu Leu Val Leu Trp Thr Ser Pro

1				5					10					15			
Ala	Pro	Thr	Leu	Ser	Gly	Thr	Asn	Asp	Ala	Glu	Asp	Cys	Cys	Leu	Ser		
			20					25					30				
Val	Thr	Gln	Lys	Pro	Ile	Pro	Gly	Tyr	Ile	Val	Arg	Asn	Phe	His	Tyr		
		35					40					45					
Leu	Leu	Ile	Lys	Asp	Gly	Cys	Arg	Val	Pro	Ala	Val	Val	Phe	Thr	Thr		
	50					55					60						
Leu	Arg	Gly	Arg	Gln	Leu	Cys	Ala	Pro	Pro	Asp	Gln	Pro	Trp	Val	Glu		
65				70						75					80		
Arg	Ile	Ile	Gln	Arg	Leu	Gln	Arg	Thr	Ser	Ala	Lys	Met	Lys	Arg	Arg		
			85					90						95			
Ser	Ser																

<210> 274
 <211> 684
 <212> DNA
 <213> Human

<400> 274

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tgcctctgtt caccctccat ggccctgcta ctggccctca gcctgctggt tctctggact 180
tccccagccc caactctgag tggcaccaat gatgctgaag actgctgcct gtctgtgacc 240
cagaaaccca tccctgggta catcgtgagg aacttcact accttctcat caaggatggc 300
tgcagggtgc ctgctgtagt gttcaccaca ctgaggggcc gccagctctg tgcaccccca 360
gaccagccct gggtagaacg catcatccag agactgcaga ggacctcagc caagatgaag 420
cgccgcagca gttaacctat gaccgtgcag agggagcccc gagtccgagt caagcattgt 480
gaattattac ctaacctggg gaaccgagga ccagaaggaa ggaccaggct tccagctcct 540
ctgcaccaga cctgaccagc caggacaggg cctgggggtg gtgtgagtgt gagtgtgagc 600
gagaggggtga gtgtggctag agtaaagctg ctccaccccc agattgcaat gctaccaata 660
aagccgcctg gtgtttacaa ctaa 684

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<210> 275
 <211> 125
 <212> PRT
 <213> Human

<400> 275

Met	Lys	Lys	Ser	Gly	Val	Leu	Phe	Leu	Leu	Gly	Ile	Ile	Leu	Leu	Val		
1				5				10					15				
Leu	Ile	Gly	Val	Gln	Gly	Thr	Pro	Val	Val	Arg	Lys	Gly	Arg	Cys	Ser		
		20					25					30					
Cys	Ile	Ser	Thr	Asn	Gln	Gly	Thr	Ile	His	Leu	Gln	Ser	Leu	Lys	Asp		
	35					40				45							
Leu	Lys	Gln	Phe	Ala	Pro	Ser	Pro	Ser	Cys	Glu	Lys	Ile	Glu	Ile	Ile		
	50					55			60								
Ala	Thr	Leu	Lys	Asn	Gly	Val	Gln	Thr	Cys	Leu	Asn	Pro	Asp	Ser	Ala		
65				70				75							80		
Asp	Val	Lys	Glu	Leu	Ile	Lys	Lys	Trp	Glu	Lys	Gln	Val	Ser	Gln	Lys		
		85				90						95					
Lys	Lys	Gln	Lys	Asn	Gly	Lys	Lys	His	Gln	Lys	Lys	Lys	Val	Leu	Lys		
	100					105						110					
Val	Arg	Lys	Ser	Gln	Arg	Ser	Arg	Gln	Lys	Lys	Thr	Thr					
	115					120					125						

<210> 276
 <211> 2545
 <212> DNA
 <213> Human

<400> 276
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 ttctctcttg gcatcatctt gctgggtctg attggagtgc aaggaacccc agtagtgaga 120
 aagggtcgct gttcctgcat cagcaccaac caagggacta tccacctaca atccttgaaa 180
 gaccttaaac aatttgcccc aagcccttcc tgcgagaaaa ttgaaatcat tgctacactg 240
 aagaatggag ttcaaacatg tctaaaccca gattcagcag atgtgaagga actgattaaa 300
 aagtgggaga aacaggctcag ccaaaagaaa aagcaaaaga atgggaaaaa acatcaaaaa 360
 aagaaagttc tgaaagtctg aaaatctcaa cgttctcgtc aaaagaagac tacataagag 420
 accacttcac caataagtat tctgtgttaa aaatgttcta ttttaattat accgctatca 480
 ttccaaagga ggatggcata taatacaaag gcttattaat ttgactagaa aattttaaac 540
 attactctga aattgtaact aaagttagaa agttgatttt aagaatccaa acgttaagaa 600
 ttgttaaagg ctatgattgt ctttgttctt ctaccaccca ccagttgaat ttcacatgc 660
 ttaaggccat gatttttagca ataccatgt ctacacagat gttcacccaa ccacatccca 720
 ctcaaacag ctgcctggaa gagcagccct aggtctccac gtactgcagc ctccagagag 780
 tatctgaggc acatgtcagc aagtccaaag cctggttagca tgctgggtgag ccaagcagtt 840
 tgaaattgag ctggacctca ccaagctgct gtggccatca acctctgtat ttgaatcagc 900
 ctacaggcct cacacacaat gtgtctgaga gattcatgct gattgttatt gggatatcacc 960
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 aagtcagctc ttctccatcc taccacaatg cagtgccttt cttctctcca gtgcacctgt 1140
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 agtgctttct tctcccaatt catcctcact cagtccagct tagttcaagt cctgcctctt 1260
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 ccaaccatac aaaaattcct tttcccgaag gaaaagggtc ttctcaataa gcctcagctt 1860
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 agttttattg tccgtttact tgtttcagag tttgtattgt gattatcaat taccacacca 1980
 tctcccatga agaaaggga cgggtgaagta ctaagcgcta gaggaagcag ccaagtcggg 2040
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 ggaggttcag tgaattgtgt aggagaggtt gtctgtggcc agaatttaaa cctataactca 2160
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 tcatttatca tatatataca tacatgcata cactctcaaa gcaaataatt tttcacttca 2460
 aaacagtatt gacttgata ccttgtaatt tgaaatatct tctttgttaa aatagaatgg 2520
 tatcaataaa tagaccatta atcag 2545

<210> 277
 <211> 98
 <212> PRT
 <213> Human

<400> 277

Met Asn Gln Thr Ala Ile Leu Ile Cys Cys Leu Ile Phe Leu Thr Leu
1 5 10 15
Ser Gly Ile Gln Gly Val Pro Leu Ser Arg Thr Val Arg Cys Thr Cys
20 25 30
Ile Ser Ile Ser Asn Gln Pro Val Asn Pro Arg Ser Leu Glu Lys Leu
35 40 45
Glu Ile Ile Pro Ala Ser Gln Phe Cys Pro Arg Val Glu Ile Ile Ala
50 55 60
Thr Met Lys Lys Lys Gly Glu Lys Arg Cys Leu Asn Pro Glu Ser Lys
65 70 75 80
Ala Ile Lys Asn Leu Leu Lys Ala Val Ser Lys Glu Met Ser Lys Arg
85 90 95
Ser Pro

<210> 278
<211> 1172
<212> DNA
<213> Human

<400> 278
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agcaccatga atcaaactgc gattctgatt tgctgcctta tctttctgac tctaagtggc 120
attcaaggag tacctctctc tagaaccgta cgctgtacct gcatcagcat tagtaatcaa 180
cctgttaatc caaggctctt agaaaaactt gaaattattc ctgcaagcca attttgtcca 240
cgtgttgaga tcattgctac aatgaaaaag aagggtgaga agagatgtct gaatccagaa 300
tcgaaggcca tcaagaattt actgaaagca gttagcaagg aaatgtctaa aagatctcct 360
taaaaccaga ggggagcaaa atcgatgcag tgcttccaag gatggaccac acagaggctg 420
cctctcccat cacttcctta catggagtat atgtcaagcc ataattgttc ttagtttgca 480
gttacactaa aagggtacca atgatggtca ccaaatacagc tgctactact cctgtaggaa 540
gggttaatgtt catcatccta agctattcag taataactct accctggcac tataatgtaa 600
gctctactga ggtgctatgt tcttagtgga tgttctgacc ctgcttcaaa tatttccttc 660
acctttccca tcttccaagg gtactaagga atctttctgc tttgggggtt atcagaattc 720
tcagaatctc aaataactaa aaggatgca atcaaactctg ctttttaaag aatgctcttt 780
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catacaattc caaacacata caggaaggta gaaatatctg aaaatgtatg tgtaagtatt 900
cttattttaat gaaagactgt acaaagtata agtcttagat gtatatattt cctatattgt 960
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aagatcaaaa ggttaataaa gtaattataa ct 1172

<210> 279
<211> 166
<212> PRT
<213> Human

<400> 279
Met Lys Tyr Thr Ser Tyr Ile Leu Ala Phe Gln Leu Cys Ile Val Leu
1 5 10 15
Gly Ser Leu Gly Cys Tyr Cys Gln Asp Pro Tyr Val Lys Glu Ala Glu
20 25 30
Asn Leu Lys Lys Tyr Phe Asn Ala Gly His Ser Asp Val Ala Asp Asn
35 40 45
Gly Thr Leu Phe Leu Gly Ile Leu Lys Asn Trp Lys Glu Glu Ser Asp
50 55 60

Arg	Lys	Ile	Met	Gln	Ser	Gln	Ile	Val	Ser	Phe	Tyr	Phe	Lys	Leu	Phe
65					70					75					80
Lys	Asn	Phe	Lys	Asp	Asp	Gln	Ser	Ile	Gln	Lys	Ser	Val	Glu	Thr	Ile
				85					90					95	
Lys	Glu	Asp	Met	Asn	Val	Lys	Phe	Phe	Asn	Ser	Asn	Lys	Lys	Lys	Arg
			100					105					110		
Asp	Asp	Phe	Glu	Lys	Leu	Thr	Asn	Tyr	Ser	Val	Thr	Asp	Leu	Asn	Val
		115					120					125			
Gln	Arg	Lys	Ala	Ile	His	Glu	Leu	Ile	Gln	Val	Met	Ala	Glu	Leu	Ser
	130					135					140				
Pro	Ala	Ala	Lys	Thr	Gly	Lys	Arg	Lys	Arg	Ser	Gln	Met	Leu	Phe	Gln
145					150					155					160
Gly	Arg	Arg	Ala	Ser	Gln										
				165											

<210> 280
 <211> 1193
 <212> DNA
 <213> Human

<400> 280

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gatgaccaga	gcatccaaaa	gagtgtggag	accatcaagg	aagacatgaa	tgtcaagttt	420
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gacttgaatg	tccaacgcaa	agcaatacat	gaactcatcc	aagtgatggc	tgaactgtcg	540
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tcccagtaat	ggttgtcctg	cctgcaatat	ttgaatttta	aatctaaatc	tattttattaa	660
tattttaacat	tattttatatg	gggaatatat	tttttagactc	atcaatcaaa	taagtatttta	720
taatagcaac	ttttgtgtaa	tgaaaatgaa	tatctattaa	tatatgtatt	atttataaatt	780
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cagttactgc	cggtttgaaa	atatgcctgc	aatctgagcc	agtgcittta	tggcatgtca	1020
gacgaactt	gaatgtgtca	ggtgaccctg	atgaaaacat	agcatctcag	gagatttcac	1080
gcctgggtgct	tccaaatatt	gttgacaact	gtgactgtac	ccaaatggaa	agtaactcat	1140
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<210> 281
 <211> 34
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 281
 gcggaatcat gggcaccaat gatgctgaag actg

34

<210> 282
 <211> 34
 <212> DNA

<213> Artificial Sequence

<220>
<223> Primer

<400> 282
gcgggatacct taactgctgc ggcgcttcat cttg 34

<210> 283
<211> 35
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 283
gccgaattca cccagtagt gagaaagggt cgctg 35

<210> 284
<211> 39
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 284
cgcggatacct tatgtagtct tcttttgacg agaacgttg 39

<210> 285
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 285
gccgaattcg tacctctctc tagaaccgta cgctgt 36

<210> 286
<211> 40
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 286
gcgggatacct taaggagatc ttttagacat ttccttgcta 40

<210> 287
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 287
gcggaatcat gtgttactgc caggacccat atg 33

<210> 288
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Primer

<400> 288
gcgggatcct tactgggatg ctcttcgacc ttg 33

<210> 289
<211> 91
<212> PRT
<213> Human

<400> 289
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Leu Cys Ala Pro Ala Ser Ala Ser Pro Tyr Ser Ser Asp Thr Thr Pro
20 25 30
Cys Cys Phe Ala Tyr Ile Ala Arg Pro Leu Pro Arg Ala His Ile Lys
35 40 45
Glu Tyr Phe Tyr Thr Ser Gly Lys Cys Ser Asn Pro Ala Val Val Phe
50 55 60
Val Thr Arg Lys Asn Arg Gln Val Cys Ala Asn Pro Glu Lys Lys Trp
65 70 75 80
Val Arg Glu Tyr Ile Asn Ser Leu Glu Met Ser
85 90

<210> 290
<211> 1237
<212> DNA
<213> Human

<400> 290
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gcgctcctgc atctgcctcc ccatattcct cggacaccac accctgctgc ttgacctaca 180
ttgcccgcgc actgccccgt gccacatca aggagtattt ctacaccagt ggcaagtgtc 240
ccaaccagc agtcgtcttt gtcacccgaa agaaccgcca agtgtgtgcc aaccagaga 300
agaaatgggt tcgggagtag atcaactctt tggagatgag ctaggatgga gagtccctga 360
acctgaactt acacaaattt gcctgtttct gcttgtctct gtcctagctt gggaggcttc 420
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